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Vol. XII, No. 1

August, 1921.

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THE JOURNAL

OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association.

All papers, case reports, etc., should be typewritten when possible.

Proof-sheets will be sent to the author when requested.

Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

Vol. XII.

AUGUST, 1921.

No. 1

TRANSCRIPT OF PROCEEDINGS

AT

THE SIXTY-NINTH ANNUAL MEETING OF THE MAINE MEDICAL ASSOCIATION,

HELD AT BANGOR, ME., JUNE 27-29, 1921.

First General Session.

CITY HALL, BANGOR, JUNE 28, 1921, 9.30 A. M.

The meeting was called to order by the President, Dr. T. E. Hardy.

Invocation by Rev. Alva R. Scott, of Bangor.

THE PRESIDENT: We will now listen to the address of welcome by Dr. Jarvis B. Woods, Mayor of Bangor, and President of the Penobscot County Medical Association. Dr. Woods. [Applause.]

MAYOR WOODS: Mr. President, and my Fellows of the Maine Medical Association:

I would feel much more at ease were I listening to your discussions and deliberations than I do acting in the capacity of your host.

Sometimes it seems to me that we cannot go very far from our chosen paths if we wish to be sure of ourselves. However, since I have been entrusted with the cares and the affairs of this city, we have established here a full-time health

department. We have secured the services of an efficient full-time health officer and he is working along profitably and pleasantly with a district nurse, with two school nurses, with a tubercular nurse, with our Red Cross Association and our Associated Charities. We have also put on to the books of this city laws which will regulate the sale of meat and milk.

Now the question or the proposition resolves itself into about this: Shall we as physicians take any particular part in any political organized activity? Some of us who may have a great fear in our hearts of making enemies, or of hurting our pocketbooks to a slight extent, say "No." Others say, "I have not the time to devote to it from my patients." But I have noticed in my twenty-six years of experience in medicine that it is always the charity patients, and not the profitable ones, that we have not time to devote to. But now there is another class of us, living in every community, who feel possibly that there is a certain civic duty to be performed, and that we should take some part in their government, for you know, after all, that in this great democracy which we all love so well there is nothing so important as government. Upon it our safety, our comfort and our protection all depend—and not only ours, but our children's and our children's children, and all the future generations.

Now, then, we as physicians are not organized politically. An instance in point! Not long since the lawyers in this county, who are well organized politically, thought it would be well to establish here in this county a superior court. It was their opinion that it would be profitable, and probably justly so. Now this cost the taxpayers of this county money; it was expensive. However, they went to the legislature, and what did they do? They had their hearings and they got their bill through. The governor signed it and they got the superior court. Now another case! We, as physicians, after we found that Bowdoin would not and could not afford to carry on the Medical School alone, thought it would be to the advantage of the State to have the Medical School continued. I, as a member of your profession, felt that way, and I think justly so. We had resolutions introduced and passed through nearly all, if not all, the medical societies in Maine. We went to the Legislative Committee with our best men, all interested in the affairs of Maine, and they nearly all argued for it. The resolution was introduced in the Legislature and the Legislature almost unanimously voted in favor of it. But what then? We were not organized. We had no political influence which the politicians cared for, and, although telegrams were sent to the head of our executive department, showing how necessary it was that the school should be continued, we were denied it.

Now in my mind, regardless of state parks, regardless of state-owned water powers, regardless of all that magnetic healers and others may say, I feel that the State of Maine is doomed, especially the rural communities, if we cannot be afforded our Medical School. Why only last Friday, in an editorial in the Boston Herald, it was stated that out of the one hundred graduates of the Harvard Medical School this year, only seventeen are to engage in the private practice of medicine. Perhaps if we had had more political influence we might have been able to still have continued the efficient services of that great executive in our Health Department, Dr. Bristol, for a few years more. We all know that the graduates of the Maine Medical School are efficient. We see their good work all over our State, and we know that they do well beyond the borders of our State. At the time of the great war their services were in demand and they were found to be very satisfactory and very efficient. Gentlemen, I leave this with you for your consideration.

Now here in this spot, where Maine's greatest and longest river mingles with the rising and falling tide of the great Atlantic, which cools and soothes our southern shore, on this June day you have journeyed to our little Queen City of which we are all so proud. We are glad that all the roads about here lead to Bangor and that it was so easy for so many of you to find the way. The city, gentlemen, is yours; our latchstrings you will find out. Come and accept our hospitality. And now, my fellow workers, to you above all others I, as chief executive and the mayor of the City of Bangor, extend, in behalf of our citizens, our most cordial welcome. I thank you. [Applause.]

PRESIDENT HARDY: Mr. Mayor, I assure you that it is with a great deal of pleasure that the Maine Medical Association accepts the hospitality of Bangor, governed by a physician. I trust that we shall leave the city intact.

MAYOR WOODS: I want to say that the City of Bangor will be very pleased to see you again.

PRESIDENT HARDY: At this time I want to introduce Dr. Craig, the Secretary of the American Medical Association. [Applause.]

DR. CRAIG: Gentlemen and Members of the Maine Medical Association: I simply want to acknowledge the very great pleasure that I have in meeting with you face to face, and to acknowledge further the kindness and courtesy which you have shown me since I arrived in Bangor last evening, even to the extent of changing the laws of Maine and having it somewhat wet this morning. [Laughter.] I believe it is a good thing for us to have a little dampness once in a while, provided it does not get too far under the skin. The bottle never hurts you if you keep the cork in, and the rain won't hurt you if you have a proper raincoat to keep the wet out. Seriously, though, it is a great pleasure to come to you and to say to you that you are one of some fifty-four organizations which are federated into the American Medical Association, making what may be a great organization for the good of the medical profession as it serves the public. Our Medical Association has a record of one hundred years of service. We are carrying on where our forbears left the burden. It is ours to make medicine stronger and better in Maine—not for ourselves, but for the people of Maine. It is ours to show the people, not only of Maine, but of all the States in the Union, that medicine is far and above anything that we may know as sectarians; that there can no more be a sectarian medicine than there can be a sectarian education; that we cannot possibly have sectarian surgery, or sectarian obstetrics, or sectarian any other branch of medicine, any more than we can have Baptist algebra, Methodist physics or Roman Catholic astronomy. Medicine must

be inclusive of all the sciences which pertain to the welfare of the people, and it must be demonstrated by men who yield no allegiance to the following of any man-made division. I simply want to say that as we come to you, representing a great profession of the United States, we come feeling that we are among friends, that we have received a hearty welcome, and we want to take from you to your fellows of the other States a message of good will and cheer and ready co-operation in everything that makes medicine stand for what it ought to be—the serving of the people. [Applause.]

PRESIDENT HARDY: Are there any visiting delegates present this morning? [No response.] If not, we will proceed with the program. The first paper on the program this morning is, "How to Meet Some Daily Problems of the General Practitioner," by Dr. Henry E. Marston, of North Anson. Dr. Marston is unable to be present and Dr. Hopkins will read the paper. He asks your indulgence, as he has not had an opportunity to go over the paper before this time.

DR. HOPKINS reads.

THE PRESIDENT: The second paper, "The General Practitioner as a Citizen," by Dr. Delbert M. Stewart, of South Paris.

DR. STEWART reads.

THE PRESIDENT: The third paper, "The Doctor and Preventive Medicine," by Dr. Adin L. Smith, of Machias.

DR. SMITH reads.

THE PRESIDENT: The fourth paper, "Obstetrics from the Standpoint of the General Practitioner," by Dr. Fred W. Mann, of Houlton.

DR. MANN: I wish to revise the title of my paper, "Obstetric Problems from the Standpoint of the General Practitioner."

DR. MANN reads.

THE PRESIDENT: Gentlemen, I feel that the Scientific Committee is to be congratulated on the excellent papers we have had this morning. The committee has thought best that the papers should all be discussed together, and I am sure there has been enough heresy brought forward so that the discussion will be lively.

(Discussion will be printed with papers.)

Adjourned.

Second General Session.

JUNE 28, 1921, 2.00 P. M.

The meeting was called to order by President Hardy.

THE PRESIDENT: Are there any visiting delegates at the meeting this afternoon? [No response.] If not, I will ask Dr. Campbell to take the chair.

DR. CAMPBELL (assuming the chair): Gentlemen, if you will come to order, we will listen to the President's address.

(See July issue.)

DR. THAYER, of Waterville: Mr. Chairman, I move that the thanks of this Association be extended to Dr. Hardy for his most interesting and decidedly practical address, and further move that a committee of five be appointed by the Chair to take into consideration the various suggestions and recommendations contained in the President's address and report upon the same sometime to-morrow.

DR. JACKSON, of Houlton: And if Dr. Thayer will allow me, I would offer an amendment to the effect that Dr. Hardy be made the chairman of this committee.

DR. THAYER: I very gladly accept the amendment.

Thereupon the motion of Dr. Thayer, as amended by Dr. Jackson, was unanimously carried.

(President Hardy resumes the chair.)

THE PRESIDENT: Last night in the House of Delegates, in the report of the Secretary, Dr. Bryant, some matters were brought up that are also covered here in my brief address, and it was decided in the House of Delegates that immediately after this address this afternoon, we would have an open business session in order that the whole Association might have an opportunity to advise and give opinions in regard to some of these important matters. I am going to ask Dr. Bryant to read that portion of his report pertaining to these things.

Secretary Bryant: Mr. President and Members of the House: This is a part of my report as delegate to the American Medical Association. It takes up this matter of public health work. This was discussed to a great extent in the House of Delegates of the American Medical Association, and it was agreed at that meeting that while we all back practically all public health work, we feel that the whole of this work should be under the direction of the medical profession, so this paragraph from this report is the one which is to be brought up here for discussion to-day, namely: "It

is the general opinion that all State health work should be under the direction of the medical profession. To rightly accomplish the result in this State, I would suggest the appointing of a committee of public health, which would be made up of those physicians now holding office in public health associations, and that this committee should have the oversight of all public health organizations, and report at the next meeting a plan for their organization and control. All the men holding positions in these associations are prominent members of our Association, and through them as a committee we should be able to control their activities."

The second proposition which was asked to be referred was this matter which Dr. Hardy has spoken of in his address: "It is our understanding that the cost of liability insurance is to be greatly increased,—the premium by club plan to forty dollars and individuals to seventy-five dollars a year. The reason given by insurance companies is the increasing number of suits brought and the increasing cost of defense." Personally I have doubts if this is true in this State. I think the matter should be closely investigated by our Association and the possibilities of mutual insurance be looked into and discussed. I would not recommend at present without more exhaustive investigation. It might be possible, if every member should pay as dues twenty-five dollars a year, to get a low enough rate to be able to pay all costs of defense and damages, including the salary of a full-time secretary. My idea in bringing this up was to have a committee of investigation appointed to report at our next annual meeting as to the advisability of taking up mutual insurance. The Boston Association is considering it at the present time, and there was a resolution introduced in the American Medical Association meeting, which was referred to the Board of Trustees, as to the advisability of taking up an insurance for the whole American Medical Association. These two matters are brought into open session for your consideration.

THE PRESIDENT: Gentlemen, you have heard that portion of Dr. Bryant's report that it was thought advisable to bring before the open meeting, and we would be glad to have a general discussion on the matter of a committee of public health, also as to the advisability of a committee on medical defense. I hope you men here will get right into the game and say just what you think, because the House of Delegates wants your advice and help.

DR. JACKSON: Mr. President, within the past year I have aided three members of this Association in the defense of three vicious malpractice suits. Those suits never in this world should have been

brought, and would not had it not been for the fact that men who were also, with one exception, members of this Association, aided and abetted the plaintiff's attorneys. Those cases were very well planned out. In one case a most complete series of X-ray pictures had been prepared. A letter had been written to the attorney for the plaintiff, and I saw it, in which the surgeon said that he could demonstrate to any jury in the world, through those plates, that the plaintiff had suffered a fractured and dislocated hip; but when it came to showing his plates to the gentlemen who represented the defense, his attitude was far different, and he went on to the stand and candidly admitted that there was no fracture or dislocation of the hip. This is one of the most important things coming before the medical profession to day, and, if we do not protect ourselves, we cannot ask for protection. The members of the Maine Medical Association must stand for and by each other, and if we are going to aid each other, it is a great deal better to do it before the case gets into court than afterward. These cases are hard upon the man who has to defend them, and they are hard a great many times on the men who have to go to his defense, and it is a matter of great regret that there are men in this State, in and out of this Association, who will stoop to injure a fellow practitioner in court. I was informed by one of the most prominent jurists in the State of Maine that, if the Maine Medical Association had the right-minded committee, and would only defend its members in justifiable cases, we soon would have the absolute confidence of the Supreme Court of this State, and it would only be a short time before malpractice suits would cease to exist. I certainly hope that this committee will be formed, and I hope that it will be one that will be allowed to go on. As Dr. Hardy has suggested, your President is a man who holds office for one year. Now this committee, in order to do its best work, must be one composed of men from different sections of the State. It must not be composed of men limited to one line of work, but it should be a committee that is fairly permanent, so that they, with their experience, can help the attorney for the Association to get the required data in each case, and thus prevent these suits, a great many of which are only vicious attempts on the part of some men to injure another. [Applause.]

THE PRESIDENT: I am quite sure others want to discuss this. DR. CALL: Mr. President, I, too, had a case similar this winter. The cause of this suit—and I think nine-tenths of all the suits are started in the same way—one doctor was called in to see a case that another doctor had been treating, and he at once said before the

patient, "You have had a needless operation." That started the whole thing. This man employed the best firm of criminal lawyers in Lewiston and proceedings were started at once. The doctor who was sued got his notice, and for some reason or other he came to me and asked me what I would do. I sent for our President, whose services I am glad to hear Dr. Jackson speak about continuing—I sent for him to come to Lewiston. We went to the doctor who had made the very foolish remark that a needless operation had been performed and we talked with him about an hour. We then had him thoroughly convinced that he was in the wrong, and that suit has been quashed. I have no doubt there are many others that would do the same thing. I believe heartily in this work that has been started.

DR. BEACH: Mr. President, there is one point in your address that ought to get under the hats of every member of this Association, and that is the manner in which we are ignored by the health interests of the State. It is a matter more of shame to us than it is criticism of those organizations. A very few of our members now realize, at least those with whom I have had an opportunity to speak, that at the last session of the Legislature the very loose bill which at one time passed permitting school committees to exclude from the schools unvaccinated children was withdrawn. That means that now even the permissive legislation which regulates that in this State has been stopped. That was done absolutely by the Legislature without the slightest consultation with any of the members of our Association. Now our organization ought to be powerful enough so that when a matter of that importance comes up in this State, the very first thing that the Legislature would do would be to consult our Legislative Committee.

With regard to the second point, that of insurance: It occurs to me that the fundamental proposition of insurance is the division of risk. That is the reason we do not each of us insure our own selves—because the more people this is divided among, the less heavily it burdens any single individual; and for that reason the suggestion that the President made, namely, that we join other States in our malpractice insurance, would carry out that purpose and divide our risk among a greater number of individuals. Of course it stands to reason that we would have to have our own committee to handle the cases in our own State, but, so far as the matter of expense goes, we could divide that with other States, and it would be even better if we could get a big State like Massachusetts than to confine it entirely to the northern States of New England. [Applause.]

DR. CAMPBELL: Mr. President, I just wanted to speak for a moment about a meeting we had at Augusta one night with Mr. Pattangall, who has been engaged by the Association as our lawyer for the defense of these cases. We invited him one evening to speak before our Augusta Medical Club, which, of course, is not a part of any Association, simply a club of local men, and, if I am quoting him correctly, I feel quite sure that he said that the thing for us to do was to get after the men in our own Association and outside of our Association who are stirring up these suits, and who are always more or less willing, according to the amount of money involved, to give a certain class of evidence which would help in a suit of that kind. I, myself, have only the greatest contempt for any member of the profession who will attempt to start a suit against another man, even if he knows that that man has done a thing that perhaps might not have been done by men of larger experience.

THE PRESIDENT: Further discussion of these points is in order. The time is going and we have a rather lengthy program. If there is no further discussion, we will refer these matters back to the House of Delegates, where action will be taken to-night, and a report made to this Association to-morrow.

Next is the report of the Necrologist, Dr. James A. Spalding, of Portland. [Applause.]

NECROLOGIST'S REPORT FOR 1920-21.

The longer I live, the less it seems to me do our members take a proper interest in those who year after year fall down ahead of us along the road of life. Never in my long career as your Necrologist has any member added a word of anecdote, praise or sympathy to the recital of the names reported at our meetings. I have lately noticed in the journals of other State societies that it is the custom in some States for members to speak concerning the dead after the names for the year have been announced. Such a custom ought to be established with us, and the stenographer could take down whatever might be said. When his words came to be edited, the most instructive anecdotes mentioned could be chosen and printed at the end of the regular report of the Necrologist, and in that way become a part and parcel of Maine's medical history. I hope, therefore, to-day and hereafter, that some members present will say a few words concerning our departed friends and from perhaps a different point of view than that chosen by the Necrologist.

Here follows an alphabetical list of members who have died during the past year.

Charles Waite Abbott, Waterville, mayor of that city at one time. Frederick Fremont Bigelow, Island Falls, a skillful Aroostook physician. Wilbur Allerd Bumps, Dexter, a man of interesting personality. Leonard Owen Buzzell, Standish, victim of an accident. Thomas Upham Coe, Bangor, founder of the Coe Dispensary at Bowdoin.

Rufus Edwin Donnell, Gardiner, a cultivated practitioner.

Barzillai Bean Foster, Portland, health officer and skilled urologist.

Frederic Henry Gerrish, Portland, great anatomist and surgeon, and famous teacher at Bowdoin for many years.

Seth Chase Gordon, Portland, surgeon in the Civil War, prominent gynæcologist, a man of force in medical circles.

Robert Ambrose Holland, Calais, a leader in Washington County medicine. Adalbert Millett, Searsmont and Belfast, a hard-working physician.

A. D. Sawyer, Fort Fairfield, a physician of unusual ability.

William Hammatt Simmons, Bangor, a man of permanent fame in the medical annals of Maine.

Charles Francis Thomas, Caribou, a beloved physician of the Northern Aroostook.

The lives of all of these physicians have either been printed already in our JOURNAL, or are ready, when space affords, so that I need not at this time relate their accomplishments in medicine. There is, however, one name which stands on the summits of medicine and surgery in Bangor and in Northern Maine, in the place where he lived and practiced for nearly fifty years, and in my opinion deserving special mention here to-day, so I make an exception in his famous favor, and ask your kind attention as I read a sketch of the remarkable career of William Hammatt Simmons, Bangor.

THE PRESIDENT: Next on our program this afternoon is a paper by Dr. Luther G. Paul, of Boston, on "Some Large Ureteral Calculi."

DR. PAUL reads.

THE PRESIDENT: The next paper is "Nephritis in Childhood," by Dr. John Lovett Morse, of Boston.

DR. MORSE reads.

THE PRESIDENT: We will proceed with the discussion of these two excellent papers, and I will ask Dr. F. H. Jackson, of Houlton, to open the discussion.

DR. MARSHALL: Mr. President, in view of the fact that Dr. Seth C. Gordon, of Portland, has always taken so prominent a part in the transactions and proceedings of this Association, it seems to me it would be well for this Association to take some notice more than that ordinarily given to the passing of a member, and I would suggest that either Dr. Spalding, or some committee appointed by you, be requested to present a suitable memorial regarding his passing.

THE PRESIDENT: I am sure the Chair would be very glad to appoint a committee to make some special note of the passing of Dr. Gordon, and the Chair appoints Dr. F. C. Thayer, of Waterville, as chairman of that committee, Dr. F. N. Whittier and Dr. Thayer, of Portland.

Adjourned until 9.00 o'clock to-morrow morning.

Third General Session.

JUNE 29, 1921, 9.00 A. M.

The meeting was called to order by President Hardy.

THE PRESIDENT: We have a long program this forenoon and we must insist on following the rule that "no paper shall occupy more than twenty minutes in its delivery and no member shall speak longer than five minutes, nor oftener than once, except by unanimous consent." I am sorry that apparently many of our members are not yet out of bed, but I think we must proceed with the program, and I take pleasure in introducing Dr. Carl G. Dennett, of Saco, who will speak on "Focal Infections."

DR. DENNETT reads.

THE PRESIDENT: The next paper is "After-Treatment of Poliomyelitis," by Dr. Allen Woodcock, of Bangor.

DR. WOODCOCK reads.

THE PRESIDENT: The next paper is "Consideration of Some of the Problems of Acute Mechanical Ileus," by Dr. Frank H. Jackson, of Houlton.

DR. JACKSON reads.

THE PRESIDENT: The next paper is "The Value of the Two-Stage Operation in Surgery," by Dr. Edward H. Risley, of Waterville.

DR. RISLEY reads.

THE PRESIDENT: Next is "Cæsarean Section," by Dr. Richard D. Small, of Portland.

DR. SMALL reads.

(Discussion printed with papers.)

THE PRESIDENT: I want to announce a meeting of the House of Delegates in the anteroom immediately after this session.

This afternoon the session will be devoted to papers on rather a new therapeutic agent, radium, and we are extremely fortunate in having the subject presented by men who are probably the most competent in America to present it. I hope you will all be here promptly at two o'clock this afternoon.

Adjourned until 2.00 P. M.

Fourth General Session.

JUNE 29, 1921, 2.00 P. M.

The meeting was called to order by the President.

THE PRESIDENT: Because we have had the distinguished honor of receiving a visit from the Secretary of the American Medical Association, and although he has been presented several times during the sessions, I think there may be some members who possibly are here for the first time to-day, and I want to again present Dr. Craig, the Secretary of the American Medical Association. [Applause.]

DR. CRAIG: Mr. President and Gentlemen of the Maine Medical Association: I have been intensely interested in your meetings throughout their entire length. I think I have found something of the same psychology here that prevails in similar meetings in other States throughout the Union. That psychology is probably illustrated by the actions of the engine that pushes the train over the Allegheny Mountains. If any of you have gone over the Pennsylvania road, you will remember that after you leave Altoona, Pennsylvania, as you go up the grade there is a pusher put on to the rear end of the train. One of my friends tells it that he was making the trip one day and he found this little pushing engine going along behind, and the minute the train started the engine began to sing to itself, "I think I can; I think I can; I think I can." Then after getting up over the grade, the little pusher left the train and went back to Altoona singing, "I thought I could; I thought I could; I thought I could." I am pretty sure the Maine Medical Association can take cognizance of that. I know you can. [Applause.]

THE PRESIDENT: I understand that at this time some member of the profession wishes to present a resolution. He may have the opportunity at this time.

DR. BADGER: Mr. President and Fellows of the Association: Many times during these present sessions of the Association there have been voiced regrets, beginning with the opening address of the Mayor of Bangor yesterday morning, also in the papers and discussions which followed, in conversation in the lobbies as well, at the demise of our late Medical School of Maine. To some of us residing in the rural communities, it seemed that it was not a proper thing to let this demise go by without passing what to us seems to be a proper resolution, for we of the rural communities, I believe, feel more strongly than you of the more thickly settled towns the real calamity which it is to the people of this State, and one that is bound

to be felt in the rural communities. It has been said sometime during this session by someone, I forget now who, that we who travel in our "flivvers," and other automobiles, are able to serve a much greater population, cover much greater territory, than did our predecessors with a barn full of horses. That is true so long as we are able to maintain that means of locomotion; but to us who reside in communities where the ground is covered with snow from four to five feet deep for five or six months of the year, during that period we are obliged to resort to the means of locomotion of our forefathers, and we are not able to do any more work than they were able to do. The resort to this means of travel also happens when there is the most business to be done by us in this climate. So, gentlemen, we of the country feel sorry because of the closing of the doors of our Medical School, and we still hope that from this body of men, who single-handed are such life savers, that collectively they may be able to resuscitate the old or give life to a new medical school for the State; and if I may be allowed, Mr. President, I will offer this resolution for your consideration and the consideration of my fellow members:

RESOLUTION.

WHEREAS, the Medical School of Maine has been closed by the action of the Trustees of Bowdoin College because of insufficient funds for its proper maintenance as a Class A school; and

WHEREAS, it was the only institution in this State giving medical instruction with power to grant a degree of Doctor of Medicine to its graduates; and

WHEREAS, its closing has taken away from the young men of this State an opportunity to obtain a medical education at a moderate expense, and at the same time has removed from our midst an uplifting influence to the entire medical profession of the State of Maine; and

WHEREAS, there is already a lacking of doctors in many rural communities; be it

Resolved: That it is the sense of this meeting of the Maine Medical Association here assembled that we deplore the circumstances that have made it necessary to discontinue the Medical School of Maine, and hereby pledge our most sincere and earnest efforts to establish a medical school in this State. And to that end, Mr. President, I move you that a committee of five be appointed by the President from varied sections of the State to devise ways and means for establishing a medical school in this State, which committee will report at the next annual meeting of this Association. I thank you.

THE PRESIDENT: You have heard the resolution offered by Dr. Badger. It is now open for consideration.

DR. MANN: Mr. President, Dr. Badger's remarks about the condition of the roads in this State reminds me of something that the late Judge Peters said about the county in which I reside—Aroostook. He said it was one of the finest counties in the State,

and that there were about six weeks right around the Fourth of July when the sleighing was darned poor. I am not a graduate of the Maine Medical School. The Maine Medical School probably is fortunate on account of that fact; I probably am unfortunate. I have realized for a long time that it was a desirable thing for young men to go to Harvard, Yale, Pennsylvania or Columbia, that it was probably the best thing they could do, but, unfortunately, all cannot do that. There is no question that doctors will have to be trained for the practice of medicine in the rural sections of this State. In the county in which I live, in the rural sections there is a conspicuous lack of doctors, and it appears to me that the Maine Medical School had this work to do and that it should have been retained. I take great pleasure in seconding Dr. Badger's resolution and motion.

DR. PERCY GILBERT: Mr. President, I would like to say "Amen" to Dr. Badger's expressions, and also second his motion.

THE PRESIDENT: Are there others who would like to speak on this resolution? Otherwise, is it your pleasure that this resolution have a passage?

Thereupon the resolution received unanimous passage.

On motion by Dr. Kershner, of Bath, which was duly seconded, it was voted that the Secretary of the Association express the sympathy of this Association to Dr. Cousins, of Portland, who has always been a very active member of this Association, in his sickness.

THE PRESIDENT: We will now proceed with the scientific program. First, we will listen to an oration, "Radiotherapy in Malignant Diseases," by Dr. George E. Pfahler, of Philadelphia, and Dr. B. P. Widmann, of Philadelphia. I take pleasure in presenting Dr. Widmann.

DR. WIDMANN: Mr. President, Ladies and Gentlemen: We had no idea that the honor of delivering an oration was to be our privilege. We have, however, prepared a very brief paper dealing in a general way with the treatment of malignant diseases by radiotherapy. I have some illustrations which I desire to show and which I trust will be interesting to you and convincing that radiotherapy does have a wonderful action upon cell life. We have a brief paper which I will read hurriedly and then get to the slides. I do not want to take more of your time than is absolutely necessary.

DR. WIDMANN reads.

THE PRESIDENT: By reason of illness, Dr. Robert Abbe cannot be with us, but Dr. Carl Robinson, of Portland, will read Dr. Abbe's paper on "General Facts of Radium Therapy."

DR. ROBINSON reads.

THE PRESIDENT: I think we must all be very much impressed by these two very interesting and rather new papers. It is a fact, I presume, that not many of us have had very much experience in this form of therapy. I had hoped that there would be a general discussion, and I am sure that Dr. Widmann and Dr. Robinson will be glad to answer any questions that you care to ask.

THE PRESIDENT: This concludes, I believe, the scientific program. We will now listen to the report of the House of Delegates and Council by Dr. Bryant, the Secretary.

THE SECRETARY: The reports of the Secretary regarding the work for the ensuing year are published in the last Medical Journal, and for that reason it will not be necessary to repeat them.

We have this year added 76 members to the membership of the Maine Medical Association. We now have a membership of 731.

In the report of the Treasurer, the cash on hand June 1st, 1920, was Cash from dues, 1921, Interest on deposits,	\$5,139.87 3,030.00 59.61
Making total receipts of Bills paid,	\$8,229.48 1,555.15
Cash on deposit, Estimated expenses, 1921–22:	\$6,674.33
Committee on Venereal Diseases, President's expenses, Legislative Committee,	\$ 25.00 100.00 100.00
Secretary's salary and Treasurer's salary, Stenographer and traveling expenses for Secretary and Treasurer,	100.00 300.00 250.00
Expenses of Councilors, Maine Medical Journal, Delegate to A. M. A., Pepper fund,	500.00 200.00 500.00
Making total of estimated expenses for next year,	\$2,075.00

Last year we voted in general session to change the matter of President to President and President-elect, that is, the President is elected, and the first year he is to preside over the House of Delegates and the next year automatically becomes President. At that time the Secretary was instructed to so change the constitution and by-laws that this would be effective for this year. So, in pursuance of that, in Article IX, Sec. 1, of the Constitution, insert after the word "President," the words "President-elect," so that the section shall read as follows: "The officers of this Association shall be a President, President-elect, two Vice-Presidents, a Secretary, a Treasurer, and six Councilors."

It seemed well to re-write the whole of Section 2, and that section now will read as follows:

"Sec. 2. The officers of this Association, except the Councilors, shall be elected annually. The President shall serve two years, the first year as President-elect, the second as President. The terms of the Councilors shall be for three years, and those officers shall serve until their successors are elected and installed."

Then an enabling act in order to carry this into effect this year: "Sec. 2A. At the annual meetings in 1921 two men shall be elected to the office of President, one to serve one year, the other for two years."

Then in the By-Laws, to conform with the foregoing, the first section under Chapter VI, "Duties of Officers," the first two lines are deleted and the following is substituted: "Strike out the first three lines and substitute the following, so that the whole section will read: The President as President-elect shall make himself familiar with all the duties and business of the Association; he shall preside over the meetings of the House of Delegates, and shall assume the office of President at the end of the next annual meeting." Then it goes on as before that "he shall appoint all committees not otherwise provided for; he shall deliver an annual address at such time as shall be arranged, and perform such other duties as custom and parliamentary usage shall require. He shall be the real head of the profession of the State during his term of office, and, as far as practicable, shall visit by appointment the various sections of the State and assist the Councilors in building up the county societies, and in making their work more practical and useful."

This was approved by the House of Delegates and now becomes active.

This year it was suggested, and was voted by the House of Delegates, to elect to the House of Delegates without power to vote all ex-Presidents of the Association, beginning with next year. To do this it was necessary to change the constitution, and so this will become effective next year. All that it was necessary to do in order to accomplish that was to change Article V of the Constitution, under "House of Delegates," by simply adding one clause, so that the Article will now read: "The legislative and business body of the Association shall be called the House of Delegates, and shall consist of (1) delegates elected by the component county societies, (2) delegates appointed by the President, (3) the Councilors, and (4) ex-officio the President and Secretary of this Association, and the ex-Presidents of the Association without right to vote." This will be laid over until the next meeting in order that it may legally go into effect.

This year it was voted to appoint a Committee on Public Relations.

It was voted to restore the visitors to State Hospitals.

It was voted to appoint a committee, with Dr. F. Y. Gilbert as chairman, together with the Council, to consider the affairs of the JOURNAL and the feasibility of uniting with the Boston Medical and Surgical Journal, with power to act.

It was voted to substitute on the medical defense matter for President and Secretary a permanent committee of five to take charge.

It was voted to pass the following resolutions in regard to Dr. Pepper:

RESOLUTIONS.

WHEREAS, a dastardly attempt to assassinate Dr. John L. Pepper, of Madison, was made March 15, 1921, by an infernal machine sent through the mail, resulting in the loss of the right hand and index finger of left hand, and otherwise mutilating and disfiguring him for life; be it

Resolved: That we, members of the Maine Medical Association, extend to Dr. John L. Pepper and family our sincere spunpathy and willingness to contribute material aid as a testimonial of our sympathy for him. Be it further

Resolved: That we, members of the medical fraternity, denounce and condemn in the strongest terms the cowardly attempt on the life of one of our worthy members, and pledge our support to every effort that can be made to apprehend and punish the dastardly villain.

Resolved: That these resolutions be made a part of our records and a copy furnished the press and one sent to our disabled brother.

It was voted to take from the funds of the Association five hundred dollars as a part of this fund. It was also voted that all the delegates present should urge upon the county societies that every man, so far as possible, should contribute five dollars to this fund.

It was voted to refer the matter of mutual insurance to the committee on medical defense, to report at the next meeting.

It was voted to hold the next meeting in Portland, in June, 1922.

THE PRESIDENT: Before we proceed to the election of a President and President-elect, the Chair has to make an appointment of a committee under the resolution passed at the beginning of this session, and it appoints on that committee Dr. Badger, of Winthrop, Dr. Mann, of Houlton, Dr. Stubbs, of Augusta, Dr. Woods, of Bangor, and Dr. Thompson, of York County. You will notice that there is no one from Portland on that committee. We will now proceed to the election of a President for the ensuing year.

DR. BENNETT: Mr. President, it gives me great pleasure to present the name of one of our members who has been most faithful

for many years. I do not remember of ever attending a meeting this Association when he was not present, and I feel absolutely sure that he will render us the most capable service, both at home and if necessary abroad. It gives me great pleasure to present the name of Addison S. Thayer, of Portland, as President of this Association for the coming year.

DR. MANN: Mr. President, it is always a pleasure to me to say good things of good people. Words would utterly fail me, however, to say all the good things I would like to say of Dr. Thayer. I have no fitting language to express my admiration and esteem for him. I know he will make a worthy successor to the long list of distinguished men who have occupied the office of President of this Association. It gives me great pleasure, therefore, to second the nomination of Dr. Thayer. [Applause.]

On motion of Dr. Kershner, of Bath, it was voted that the nominations close, and Dr. Thayer was elected President for the ensuing year by a unanimous rising vote.

DR. THAYER: Mr. President, to be President of the Maine Medical Association is a high honor and a great opportunity for service. Gentlemen, I thank you. [Applause.]

THE PRESIDENT: We will now proceed to the election of a President to serve two years or, in other words, a President-elect.

DR. KERSHNER, of Bath: Mr. President, I rise to present the name of a man from Sagadahoc County, a county which I think never has to this date had a President of the State society, a man of a temperament that will make us all go some. He has the ability to make us work, and for the next two years it seems to me that the salvation of this society, and that of every other, is work; and the man who can get the work out of the other fellow, as well as work himself, will be a capital man for us. I take pleasure in presenting the name of Dr. Langdon Snipe, of Bath.

The nomination being duly seconded, it was voted that the nominations close, and Dr. Snipe was declared elected President-elect by a unanimous rising vote.

DR. SNIPE: Mr. President, I shall try to do the work faithfully, and I certainly am very sure that I can do no better than imitate the way in which the work is being done at the present time. Gentlemen, I thank you.

THE PRESIDENT: Gentlemen, the sixty-ninth annual meeting of this Association is now adjourned.

First Session of House of Delegates.

CHAMBER OF COMMERCE ROOMS, BANGOR, ME., JUNE 27, 1921, 8.00 P. M.

The meeting was called to order by the President, Dr. T. E. Hardy, of Waterville.

A roll call of Councilors and delegates disclosed a quorum present.

Drs. Marshall and W. Bean Moulton were seated as alternate delegates representing Cumberland County.

THE PRESIDENT: Gentlemen, before we proceed with the business of the evening, it gives me great pleasure to introduce Dr. Craig, of Chicago, Secretary of the American Medical Association. [Applause.]

DR. CRAIG: Gentlemen of the House of Delegates of the Maine Medical Association: At this time I simply want to say that I am mighty glad to be here. Later in the evening, after you have finished your business, I would like to say something to you, if agreeable to you, Mr. Chairman.

THE PRESIDENT: I also wish to introduce at this time Dr. Bowers, of Massachusetts. [Applause.]

DR. BOWERS: Mr. President and Fellows of the Maine Medical Association: I have been asked to come here by the Massachusetts Medical Society and confer with your officials—not so much your meeting as personally with your officials—and my theme is the Boston Medical and Surgical Journal.

He spoke of the founding of the Boston Medical and Surgical Journal in 1828, the taking over by the Massachusetts Medical Society, and finally the desirability of the New England States societies uniting with the Massachusetts society in having this the official organ of the six States. It will be necessary to change the name to New England Medical and Surgical Journal. In accordance with the provisions in transfer from former owners, the name cannot be changed until 1928, which would round out one hundred years of the present Journal. Possibly this could be modified.

THE PRESIDENT: I am sure we are very glad to hear from Dr. Bowers on this subject, and we will give it consideration at the time we consider our own publication and hear the report of Dr. Hardy. I want also to introduce an old classmate and friend, Dr. Paul, of Boston. [Applause.]

DR. PAUL: I am very glad to know you all. I will not make any remarks to-night, although Dr. Hardy perhaps would like to hear me make a speech. You will hear from me to-morrow.

THE PRESIDENT: Next will be the report of the Secretary.

(See June issue.)

THE PRESIDENT: We shall ask for a report from the Board of Councilors at our next meeting.

On motion by Dr. Gilbert, duly seconded, it was voted that the Association endorses the work of the Secretary for the past year. This was adopted by a rising vote.

On motion, duly seconded, the Secretary's traveling expenses shall be paid from the treasury of the Association.

THE PRESIDENT: I am now going to call on the First Vice-President, Dr. Campbell, to preside at this meeting from now on.

DR. CAMPBELL (in the chair): Gentlemen, I feel a good deal the way a boy does when he rises to make his first speech. I shall have to depend on the Secretary here to post me as to the order of the meeting. If you will deal kindly and gently with me, I will endeavor to proceed in the order he directs.

THE CHAIRMAN: Now, gentlemen, in regard to these reports that have been printed in the JOURNAL, taking them in the order that they are printed, shall we take them up separately or shall we accept them as printed in the JOURNAL. The chair awaits your pleasure.

On motion of Dr. Snipe, it was voted that the reports as printed in the JOURNAL be accepted.

THE CHAIRMAN: I understand from the Secretary that the report of Dr. Whittier, chairman of the Committee on Venereal Diseases, is not printed. If that be so, we will have Dr. Whittier report at this time.

DR. WHITTIER: Mr. President and Members of the House of Delegates: I have to apologize for not getting my report in in time to be printed. I had plenty of notice, but at that particular time I was very busy and it was difficult for me to get the report in. Consequently I must crave your indulgence for presenting it at this time.

(See July issue.)

DR. WHITTIER: The committee asks that the committee be continued, that the report be accepted, and that the financial reports and vouchers be submitted to the proper officers.

THE CHAIRMAN: I think that the committee are to be congratulated on the work which they have done. What will you do with the report?

On motion, duly seconded, it was voted that the report be accepted, the appropriation made, and the accounts referred to the Auditing Committee.

PRESIDENT HARDY: Mr. Chairman, I would suggest that at this time we have Dr. Gilbert's report, and then discuss his report

and the suggestion made by Dr. Bowers here this evening on the JOURNAL.

THE CHAIRMAN: The President suggests that we have Dr. Gilbert's report on the JOURNAL.

DR. GILBERT: Mr. Chairman and Members of the House of Delegates: The Journal report is printed in the June issue and needs no further comment. As regards amalgamation with the Boston Medical and Surgical Journal, our State Journal has run eleven years at a nominal expense (\$500,00) to the society and can continue to do so. If in the proposed amalgamation we can give to the members a better value for their due, we should vote for it, as it is the duty of the officers of the State and county societies to see that the individual member gets the greatest value for his membership. There are but two points for consideration: First, the expense, and secondly, the new journal must bear a name which will not designate any State or body. This matter should be left in the hands of a committee.

Following discussion by Drs. Hardy, Call, Bowers and Gilbert, Dr. Hardy moved that Dr. Gilbert, with the Councilors, constitute a committee with power to take up negotiations with a committee of the Massachusetts Medical Society for the status of a New Lingland Medical and Surgical Journal.

The motion, being duly seconded, prevailed.

THE CHAIRMAN: We will now listen to Dr. Bryant.

DR. BRYANT: At the last meeting it was voted that this year we should shift over and elect two men; that for the first year our President should serve as a President-elect and for the second year he should be the presiding officer in the House. In order to accomplish that it will be necessary that a new by-law be passed, and as I was asked to make out this by-law as a Committee on the By-Laws and Constitution, I will read it to you. In the By-Laws, Chapter VI, Sec. 1, strike out to the first semicolon and substitute as follows:

"The President as President-elect shall make himself familiar with all the duties and business of the Association; he shall preside over the meetings of the House of Delegates and shall assume the office of President at the close of the next annual meeting. As President he shall appoint all committees not otherwise provided for; he shall deliver an annual address at such time as shall be arranged, and perform such other duties as custom and parliamentary usage shall require. He shall be the real head of the profession of the State during his term of office, and, as far as practicable, shall visit by appointment the various sections of the State and assist the Councilors in

building up the county societies, and in making their work more practical and useful."

THE CHAIRMAN: You have heard the change in the by-law as given by Dr. Bryant. What is your pleasure in regard to it?

On motion by Dr. Kershner, duly seconded, it was voted that it be accepted in accordance with the vote of the previous meeting.

THE SECRETARY: Then the amendment to the Constitution, Article IX, as follows:

"OFFICERS.

"SEC. 1. The officers of this Association shall be a President, President-elect, two Vice-Presidents, a Secretary, a Treasurer, and six Councilors.

"Sec. 2. The officers, except the Councilors, shall be elected annually. The President shall serve for two years, the first year as President-elect, the second as President. The terms of the Councilors shall be for three years. All these officers shall serve until their successors are elected and installed."

Then we will put in Sec. 2A as an enabling act for this, as follows: "At the annual meeting in 1921 two men shall be elected to the office of President, one to serve one year, the other for two years." That will fix it, I think, all right. This was authorized at the last meeting, and it was asked that the Secretary modify the Constitution to meet this change.

On motion, it was voted that the amendment to the Constitution, as proposed by the Secretary, be accepted in accordance with the vote of the last meeting.

THE CHAIRMAN: Is Dr. O'Brien ready to report from the Committee on State Sanatoria?

DR. O'BRIEN: Mr. Chairman, I have nothing to report. Until Dr. Welch wrote to me, I had never been informed that I was on the committee.

THE SECRETARY: The expense in this matter of medical defense, outside of the original fee of \$200 to the attorneys, for the past year I think will be under \$150. We have been mixed up in twelve suits and have personally handled five suits. There is one suit pending that we are working on at the present time. No suits have come to trial and I doubt if they ever do; so the plea of the insurance companies, especially in the State of Maine, that the premium is not enough to cover the liability, I do not believe is true.

PRESIDENT HARDY: I wish to appoint a committee on nominations. I appoint on that committee Dr. Kershner, of Bath, Dr. F. Y. Gilbert, of Portland, Dr. Tyson, of Augusta, Dr. Call, of Lewiston,

and Dr. Miner, of Calais, and I wish to announce that there will be a meeting of that committee at Dr. Bryant's house to-night immediately after this meeting adjourns.

DR. MOULTON: Mr. Chairman, as a member of the committee on a fee schedule, at the last meeting Dr. Robinson, of Bangor, suggested that such a committee be appointed. Dr. Holt and myself are members of the committee, but we never have had a meeting. I wish to make a minority report of the committee that in our opinion at the present time it would be inadvisable for this society to establish any system of fees for work under the Compensation Act.

THE CHAIRMAN: You have heard the remarks of Dr. Moulton in regard to the fee system. Is there any discussion on his motion? If not, a motion to accept is in order.

Thereupon it was voted to accept Dr. Moulton's report.

THE CHAIRMAN: Is there any other matter that any member wishes to bring up?

Dr. Tyson raised the question of medical men serving on trustee boards of State hospitals.

THE CHAIRMAN: Does any member wish to speak upon that point? Dr. Hardy, what have you to say in regard to Dr. Tyson's suggestion?

PRESIDENT HARDY: The only way to bring that about is to elect a doctor Governor.

THE CHAIRMAN: I have often thought of that. Here in Bangor I understand we have a doctor who is a politician—perhaps I should say a statesman—and I have often thought we should be represented on the board of trustees, but if the Governor should notify me to-morrow that I was to be appointed as a member of that board I should decline, for two reasons: First, because I should feel that I did not have the ability; and, secondly, because I would not be seeking for trouble. I have trouble enough already. Any other remarks upon this topic?

PRESIDENT HARDY: Mr. Chairman, I will say this: I believe it is our own fault that we do not have more representation and are not given more consideration. I think the medical profession has failed to keep abreast of the times and take the active part in the affairs of the State that it should take, and it is because we have not been very keen to accept these burdens that we are not given the consideration that perhaps other professions are given and the consideration that we really deserve and merit. As to what Dr. Tyson has mentioned, I believe that we are being re-born about now. I think the medical profession is going to take a stand in the community in the future that will make our statesmen sit up and take notice, and I

have an idea that as time goes on we will get what consideration is due us.

THE CHAIRMAN: I think, Dr. Tyson, that would be rather an interesting thing to bring up before the general meeting. I should certainly be interested to hear it discussed at least. If there is no further business, we will now listen to Dr. Craig. [Applause.]

DR. CRAIG: Mr. Chairman:

It has been a great pleasure to sit here and listen to your proceedings. You seem to know what to do without making very much noise about it, and I believe you are going to accomplish some of the things suggested here to-night, but to do it you must come back to the old question of organization after all. The organization of the American Medical Association has developed in the last one hundred years remarkably. One hundred years ago a certain number of men gathered themselves together and formed an organization for the purpose of advancing medical knowledge. Then along in the late forties-1847-a group of men from all over the United States got together for the purpose of standardizing medical education, and out of that gathering grew the American Medical Association. At first the American Medical Association was a group of delegates from different organizations, hospitals, state, county and local societies. Then the so-called reorganization of the American Medical Association took place in 1901. At that time we found that the state and county societies were practically the only organizations that were represented in the American Medical Association, and a new form of organization was devised which was really the development of the old form.

One of the dangers of organizing a group of men, such as physicians, is that we, as physicians, are individualists. We all of us go a certain gait of our own, and one of the lessons we are to learn is that while we need not surrender one iota of our individual power, if we will co-ordinate our work with our fellows and our compeers in the profession, we will gain that tremendous impetus which comes from any such organization.

One of the suggestions made to-night has been to the effect that the medical profession in Maine is not properly recognized, and probably, as suggested, that in part is your own fault, and it is in part due to the fact that we are in the habit of doing things ourselves as individuals. We may take our question to our county medical society and discuss it in a more or less cursory way, but we are very apt to stop with passing a resolution and thinking we have accomplished our ends. Now, passing the resolution is only the beginning of what we ought to do. We ought to be the yeast that leavens the whole lump, and we ought to take into our confidence, in such questions as are proper, the leading men of our communities. If we were to go out to-night and gather in some of the leading statesmen that you have in Maine, and present this question that has been suggested, concerning the advisability of having at least a representative of the medical profession on the board of managers of an institution which has the care of the sick in charge, probably the first time they would not heed you, the next time they would not understand you, and so on until finally you would accomplish something after all. What we need as a medical profession is to get in touch with our friends in the laity, and have our leading men in the community, our ministers, our teachers, our lawyers, our bank presidents, our merchants, the leading men in the organizations of labor, understand that we,

after all, have no ulterior motive, and that the only right the medical profession stands on, the only primary right, is the right to serve the people. One of the fundamentals of medical ethics is the statement that the profession is for the service it can render primarily and first of all, and the fee and remuneration is of secondary consequence; and we always stand for that. It is necessary that we should earn a living in our vocation, but there is no physician worthy of the name who will not give his services freely to anyone who is in need and has not the money to provide compensation for the physician's needs. We stand to serve the people, and we are misunderstood, largely because the people cannot understand that form of psychology. They think there must be a "nigger in the woodpile" somewhere. Let us stop talking about our altruism, but let us go back and talk to our friends in our own community, and when we want to do something for the good of the community, and when we want to place a physician on the board of directors or trustees of a state institution, first of all select the man who ought to be appointed, and go to him and make him feel that, no matter how busy he is, he owes something to the State as well as to the members of his family and profession, and make that man see that he ought to accept the appointment when it comes to him. Then go to the man who has the appointing, take with you the statesmen of your community and the statesmen of the community where this physician resides, representing those who do things in that community, and you will find that the Maine Medical Association will really be a power in politics as well as a power for the uplift of the profession itself.

Now these moot questions which you are to discuss among yourselves are not yet ready for public discussion, but there are many questions which you ought to take to the people of your communities and convince them that it is the welfare of the community that you have at heart, and that the proposition you have to submit is not in the interest of the medical profession primarily, but in the interest of the people; and after you once establish yourselves in public opinion, you will begin to find that you have the power to co-ordinate. It is said that one of the legislators, in one of your neighboring States, laughed at a committee of physicians that went to him, and that he told the committee that the medical profession in that State was not organized; that they simply voiced the sentiment of a small number of people of the State, and told them to go home and organize. He probably was right. The doctors do not need to organize so much in their own ranks as to have propaganda which will influence the people of their communities. It is your province, for instance, to determine who shall be licensed to practice in your State. It is said that the doctors are going away from the rural communities, but that is not a problem to be solved by the licensing of low-grade men to practice in those communities. The reason that the doctors are leaving the small centers is partly because of the change in economic relationship which affects the medical profession as well as every other line of business in the State. You physicians who drive a Ford, or some real automobile, are serving a larger territory than your forbears ever served, even with a stable of ten horses, and with the Maine nurses to assist you, you are able to take care of far more patients than could your ancestors in the medical profession. Consequently, instead of having a physician at every crossroad and two physicians in every small hamlet, you are finding that the physician in the relatively larger community is serving that whole territory, and doing it better than did his forbears in the profession. The people do not understand that at the present time, and they must be made to know it. The doctor of to-day will go to the crossroads just as soon as he is given an opportunity to earn a competency there and to feel that he has a service to render to the people of that community, but you cannot make a doctor or any other healer go to the crossroads when he cannot find the conveniences for living there.

There is one thing that we ought to guard against, and that is that in all our development in the science of medicine, some of us are forgetting to practice medicine in the sense of the art of medicine, and that is where our sectarians are beginning to undermine us. They are doing things to the patients. They may be doing a wrong thing, but they are doing something that the patient feels is of service. The result is that Mr. Doe, of Searsmont, simply goes to the sectarian, who manipulates him, pulls his leg (figuratively as well as literally), but he feels he is having something done, whereas you and I get a report from the laboratory, or a report from some assistant, and all the time we are not coming into personal contact with the patient. We are treating cases instead of caring for patients; and if we doctors will just go back to the practice of medicine, and will put ourselves into the service of the community, both in our profession and in our relationship to the laymen, we will find that the organization of medicine will be a benefit to the community. And I want to say to you that the organization of the medical profession, as it now stands, is one of the most comprehensive and one of the best thought-out plans of any organization that we have. We have our county societies where our men meet in the old-fashioned town council-the old-fashioned village committee meeting-and we ought to discuss problems of professional interest and problems of social interest and medical and economic problems right there. Then we elect our delegates to the House of Delegates, and those delegates are to be responsible for shaping the policy of the Medical Association of your State, and are selected for their ability to dig into and solve the problems presented. Then after you have formulated your policies and determined your method of conduct of your Maine State Association, you send your delegates to the House of Delegates of the American Medical Association, and we want to ask you to read the minutes and the reports of the House of Delegates as they are published every year in the Journal. If you men would read the minutes of the House of Delegates with the same interest that you take in reading the editorials in the daily press, or some article that appeals to you in the Journal, you will find that you are really more conversant with what the Association is trying to do; but let me beg of you to remember that every one of the three bodies in the American Medical Association has a distinct and definite function to perform, and unless the county societies function to their fullest capacity, and unless the various constituent State societies up to their ability, the House of Delegates of the American Medical Association cannot do its work any more than in your family if you do not train your boys and girls to obedience and to ordinary moral character, you cannot expect your church to make good citizens of them or you cannot expect your schools to make good citizens of them. Each of us must do his share in the place where he is

I want to thank you, gentlemen, for your patience in listening to me. I also wish to thank Dr. Bryant for the hearty support he has always given our office, and I assure you we have given him like hearty support. [Applause.]

THE CHAIRMAN: I am sure we are all very glad to have heard

Dr. Craig. I hope that his talk will be helpful to us, and I am sure it will be.

Adjourned.

Second Session of the House of Delegates.

CHAMBER OF COMMERCE ROOMS, BANGOR, ME., JUNE 28, 1921, 5.00 P. M.

Vice-President Campbell in the chair.

DR. SYLVESTER: Mr. Chairman, at the last annual meeting of Cumberland County Association, the President recommended action in regard to the admission of homeopaths, but the report of a special committee was that no action could be taken, as it would conflict with Chapter IX, Sec. 5, of the By-Laws of the State Association. It is a distinct and definite statement of our American Medical Association that the county society or unit shall be sole judge of the qualifications of membership. Such control was, in this instance, apparently denied. I will read you some extracts from our Constitution and By-Laws:

First, Constitution, Article II:

"The purposes of this Association shall be to federate and bring into one compact organization the entire medical profession of the State of Maine."

Sec. 7 of the By-Laws, Chapter IV:

"This Association shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality, and shall continue these efforts until every physician in every county of the State, who can be made reputable, has been brought under medical society influence."

Sec. 10, Chapter IX:

'Its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county; and systematic efforts shall be made by each member, and by the society as a whole, to increase the membership, until it embraces every qualified physician of good standing in the county.''

These three full, definite and consonant statements representative of the spirit of modern medical organization are nullified by Chapter IX. Sec. 5, which declares eligible for membership "every regular physician who does not practice, or claim to practice, or lends his support to, any exclusive system of medicine." This was doubtless framed to exclude homeopaths, and has been retained for the satisfaction of those members who are more inspired by memory than by progress. It is a relic of ancient antagonism, for we have

stopped fighting the air. There are now but a few over fifty homeopaths in the State. Very many of them are honest, and are inspired, as we are, with the desire to help the sick. They are not trying to practice without a medical education. Their cult is dying out in the rush of the public after later fancies and follies. We have one registration board with them. Let us show unlimited courtesy and destroy the vestige of conflict. We must ultimately come to only two qualifications for membership, viz., an honorable character and a complete medical education. Therapeutic differences are now negligible, or so varied as to constitute, for the educated man, no class distinction. I would move that Sec. 5, Chapter IX, be amended by substituting in place of the fifth, sixth and seventh lines the following: "Every reputable physician of moral character, who has had a complete medical education, and who shall have passed the examination of the Board of Medical Registration, and be a legally qualified practitioner according to the laws of the State of Maine."

The Chairman stated that the matter would have to be tabled till next meeting, but asked present discussion on this apparent confliction.

Dr. Neal stated that there were two homeopaths in his county society who made good members. No discrimination was made.

Dr. Marshall stated that he believed the matter should be corrected as suggested.

PRESIDENT HARDY: As a matter of fact we have been taking homeopaths into the county societies for a number of years. Our President of the State society last year was, I believe, a homeopath. Our county refused to take men who advertised, or who put on their cards "Homeopathic Physician." We have only discriminated in the case of those men who stick absolutely to homeopathy.

After discussion by Drs. Badger, Cummings, Call, Marshall and Hutchings, a Medical Defense Committee of five members was elected, consisting of the Secretary, Dr. Bryant, and Dr. Hardy, who shall appoint the other three members, one for one year, one for two years, one for three years, and so on for five years.

Voted, that the matter of mutual insurance be left to the Medical Defense Committee for investigation and report.

Dr. O'Brien moved the appointment of a Committee of Public Health and spoke of the need of centralizing health activities. After question by Dr. Marshall, Dr. Bryant explained that the Maine Public Health Association invited such action on our part. The appointment and number of such committee was left to the Nominating Committee.

The Chairman, Dr. Call, Dr. Cummings and Dr. Gilbert, of Aroostook, spoke of the desire to assist Dr. Pepper on account of his serious injury. A letter from Dr. Sawyer was read, testifying to the very great esteem in which Dr. Pepper was held in his town, and also by his colleagues. He reported the sum of \$1,300 raised by his friends in the village and \$600 received June 27th from the county medical societies, as follows:

Aroostook,	\$ 57.00
Cumberland,	136.00
Franklin,	45.00
Kennebec,	145.00
Knox,	5.00
Lincoln,	10.00
Oxford,	5.00
Penobscot,	5.00
Sagadahoc,	10.00
Somerset,	120.00
Washington,	77.00
York,	5.00
	\$620.00

On motion of Dr. Cummings and Dr. Call, and approval by Dr. Hardy, the following resolutions were adopted:

WHEREAS, a dastardly attempt to assassinate Dr. John L. Pepper, of Madison, was made March 15, 1921, by an infernal machine sent through the mail, resulting in the loss of the right hand and index finger of left hand, and otherwise mutilating and disfiguring him for life; be it

Resolved: That we, members of the Maine Medical Association, extend to Dr. John L. Pepper and family our sincere sympathy and willingness to contribute material aid as a testimonial of our sympathy for him. Be it further

Resolved: That we, members of the medical fraternity, denounce and condemn in the strongest terms the cowardly attempt on the life of one of our worthy members, and pledge our support to every effort that can be made to apprehend and punish the dastardly villain.

Resolved: That these resolutions be made a part of our records and a copy furnished the press and one sent to our disabled brother.

On motion by Dr. Moore, it was voted that the sum of \$500 be donated to Dr. Pepper, and that this should be understood to be an encouragement to the county societies to continue subscriptions up to the amount of five dollars apiece.

For the next year's meeting, Dr. Marshall invited the Association to Portland. An invitation was also offered by Houlton, and Dr. Miner, of Calais, gave a hearty invitation to St. Croix River valley. On motion of Dr. Tibbetts, of Oxford County, it was voted to hold the next annual meeting in Portland.

THE CHAIRMAN: The budget report and the report of the Nominating Committee will go over until to-morrow.

Adjourned.

Third Session of the House of Delegates.

CHAMBER OF COMMERCE ROOMS, BANGOR, ME., JUNE 29, 1921.

The meeting was called to order by the President.

THE PRESIDENT: We have before us the resolution submitted by Dr. Sylvester last night in regard to amending Sec. 5 of Chapter IX of our By-Laws. We have taken this matter up with Dr. Craig, have also given it consideration ourselves, and we are of the opinion that no change is necessary, that the county societies can admit any practitioner of medicine who is not professionally sectarian.

On motion by Dr. Kershner, duly seconded, the matter was indefinitely postponed.

THE PRESIDENT: The Secretary will read the budget.

THE SECRETARY: Estimated expenses 1921-1922:

Committee on Venereal Diseases,	\$ 25.00
President's expenses,	100.00
Legislative Committee,	100.00
Secretary and Treasurer's salary,	100.00
Stenographer and traveling expenses for Secretary and Treasurer,	300.00
Expenses of Councilors,	250.00
Maine Medical Journal,	500.00
Delegate to the A. M. A., at St. Louis,	200.00
Pepper fund,	500.00
Total,	\$2,075.00

THE PRESIDENT: Gentlemen, you have heard the budget as submitted by the Secretary. What action will you take?

On motion by Dr. Kershner, duly seconded, it was voted that the budget as submitted be approved.

THE PRESIDENT: We will next hear the report of the Committee on Nominations.

Dr. Kershner, of the Nominating Committee, reported as follows:

1st Vice-President—Wallace Webber, Lewiston. 2nd Vice-President—Edwin Cook, York. Secretary and Treasurer—B. L. Bryant, Bangor.

BOARD OF COUNCILORS.

First District—(1924) C. B. Sylvester, Portland.
Second District—(1924) E. V. Call, Lewiston.

COMMITTEES.

Scientific Work—Carl Robinson, Portland; R. L. Wakefield, Bar Harbor; F. N. Whitter, Brunswick.

Public Policy and Legislation—L. G. Bunker, Waterville; F. H. Badger, Winthrop; W. B. Moulton, Portland.

Health in Schools—A. L. Smith, Machias; new Commissioner of Health (when appointed by the Governor); J. A. Spalding, Portland; T. A. Foster, Portland; E. A. Porter, Pittsfield.

Venereal Diseases—F. N. Whittier, Brunswick; H. W. Stanwood, Rumford; E. E. Holt, Sr., Portland.

Cancer—E. H. Risley, Waterville; H. E. Thompson, Augusta; Mortimer Warren, Portland.

Necrologist-J. A. Spalding, Portland.

Hospitals—H. L. Bartlett, Norway; F. W. Mitchell, Houlton; W. N. Miner, Calais. (These in their order named to serve one, two and three years.)

Delegate to A. M. A.—B. L. Bryant, Bangor; alternate, F. Y. Gilbert, Portland.

Delegate to National Council, Medical Education—T. E. Hardy, Waterville.

Delegate to National Legislative Council—E. G. Abbott, Portland.

Delegate to State Societies—New Hampshire, J. A. Spalding, Portland; Vermont, F. R. Carter, Augusta; Massachusetts, T. J. Burrage, Portland; Rhode Island, Ralph Reynolds, Waterville; Connecticut, E. H. Bennett, Lubec.

Visitors to State Sanatoria—C. E. Sylvester, Portland; Carl O'Brien, Bangor.

Committee on State Hospitals—Henry Swift, Portland; Warren Sanborn, Winthrop.

Committee of Medical Defense—Dr. T. E. Hardy, Dr. B. L. Bryant, Dr. E. G. Abbott, Dr. F. H. Jackson, Dr. E. V. Call.

Committee on Public Relations—Dr. S. J. Beach, Dr. T. E. Hardy, Dr. Merrill, of Dover, Dr. Richard Small, the new Health Commissioner (when appointed by the Governor), Dr. B. L. Bryant, Dr. F. Y. Gilbert.

The report of the Nominating Committee was accepted.

PRESIDENT HARDY: Now, gentlemen, I want to take this opportunity, at the last session of the House of Delegates, to thank the Councilors and the House of Delegates for your hearty co-operation in getting the work of the society along, and I also wish to thank the First Vice-President, Dr. Campbell, for his help in conducting the meetings. We now stand adjourned.

JOURNAL OF MAINE MEDICAL ASSOCIATION

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DR. T. E. HARDY, Waterville.

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DR. F. H. WEBSTER, Rockland.

Editorial Comment.

TRAINING PUBLIC HEALTH OFFICERS.

Plans for the organization of a School of Public Health in Harvard University, with the aid of an initial gift of \$1,785,000 by the Rockefeller Foundation, were announced to-day by the university and the officers of the Foundation.

An excellent general course for the training of public health officers, as well as special courses in preventive medicine, in tropical medicine and industrial hygiene, have already been developed at Harvard. The work has been hampered, however, by lack of adequate funds and by uneven growth. The new school will provide opportunities for research, will unify existing courses, and will offer new or extended teaching facilities in public health administration, vital statistics, immunology, bacteriology, medical zoology, physiological hygiene and communicable diseases.

For the housing of the school the university hopes to secure an existing building, of very suitable character, immediately adjacent to the Medical School. Funds for the purchase and equipment of the building will be drawn from the gift of the Rockefeller Foundation.

The cost of maintenance and development of the school will be met from endowment funds, in part set aside by the university and in part contributed by the Foundation. The Foundation's immediate appropriations to the project will aggregate \$1,785,000. The arrangement also provides for further gifts, if the growth of the school seems to demand it, to any amount which shall not exceed \$500,000.

Though the School of Public Health at Harvard will have its headquarters in a well-equipped building of its own and have its own separate faculty and administration, it will be developed in close relations with other divisions of the university, especially the Medical School. The administration buildings of the two schools will, it is hoped, stand side by side on the same grounds, certain heads of departments will be members of both faculties, and a number of laboratories and lecture rooms will be used in common.

The school will be able to co-operate with a large number of laboratories, hospitals and public health agencies in Boston and thus afford its students unusual opportunities for first-hand investigation and practical field experience. In addition, the school, through cooperative relations with a number of manufacturing and commercial corporations, will be able to offer the students practical experience in industrial hygiene.

NEW YORK, August 21, 1921.

CAMPAIGN FOR CANCER CONTROL.

The Educational Campaign for Cancer Control, under the auspices of the Maine Public Health Association, has had a fairly vigorous start during the past year. The well-edited and uniform literature of the American Society for Control of Cancer has been distributed to all physicians throughout the State and to many lay organizations, and lectures on the essential facts regarding malignant disease have been given to nurses in practically all public and private hospitals and to a certain number of lay organizations. The hearty co-operation of many enthusiastic physicians throughout the State has made this splendid beginning possible.

During the coming year cancer control work is to be further systematized by placing it directly under the supervision of the Maine Medical Association and by uniting the work of the two organizations with the aim of making the campaign even more intensive during the coming year. The State Committee is composed of Dr. Edward H. Risley, chairman, Dr. F. H. Jackson, Dr. Carl M. Robinson, and Mr. W. B. Thurber, ex-officio. A Cancer Control Committee is to be appointed in each county in order that the work may be more successfully carried out in all its details in each county.

Particular efforts shall be made this year toward systematizing the lecture system, toward increasing the number of lectures to lay organizations, a continuance of the lectures to all nurses, the providing of papers on the general subject of cancer before each county medical society, and further intensifying the work already begun. It is desired to place the essential and hopeful facts about malignant disease in the simplest manner possible before the largest number of people possible during the year.

From Oct. 30 to Nov. 5, 1921, the American Society for Control of Cancer proposes to hold a nation-wide cancer week, and it is planned to intensify all cancer work throughout the country at this time. Your attention is directed to this movement, and it is hoped that the earnest co-operation of all physicians in the State may be secured.

E. H. RISLEY.

Necrology.

SETH CHASE GORDON, M. D., LL. D.

1830-1921.

The passing of a man who has lived and wrought in this world for more than ninety years is of itself worthy of more than cursory comment, but when that life has been filled to the brim with the activities of a much more than ordinary professional experience, special mention may well be made of its ending.

Doctor Gordon was a country boy, born within sight and influence of those wondrous hills—the White Mountains—and his life's career partook in no small degree of their rugged beauty, strength and permanence.

Graduating from the Maine Medical School in 1855, he became a successful general practitioner of medicine in a country community, wise and dependable. He served, during the Civil War, as assistant surgeon and as surgeon in the army of the United States, from 1861 to 1865, after which he took up his residence in Portland and devoted himself especially to the practice of gynecology and general surgery. He was a pioneer along certain lines of operative procedure, and his skill and judgment were of the best in his day and generation. A man of strong opinions, firm in his convictions, he acted upon his own mature, well seasoned judgment, yet he was tolerant and ever willing to concede the other man's right to a different point of view and conclusion as well.

Educated largely in the school of experience and reaching eminence in various lines, he was never failing in kindly assistance to the young man who manifested a desire and a disposition for improvement, and he would and frequently did go out of his way to render aid to such an one.

Early in his career he became a member of the Maine Medical Association, rarely ever missed any of its meetings, was always ready with advice and counsel, exceedingly prominent in all of its activities, presenting many papers and entering into the discussion of many others, commending, condemning, criticising constructively and de-

structively as the spirit and occasion dictated, ever effectively and with great power. As President of the Association, he presided with dignity and distinction as well as with efficiency and sagacity.

In truth, after many years of service, a unique character, a great and strong man has fallen, but his influence still remains to sway the thought and action of those with whom he came in contact. An unusually long, very active, and exceedingly useful life is ended with a much larger accomplishment to its credit than ordinarily obtains, and so—

"Why with coward lips complain
That this must lean and that must fall."

Frederick C. Thayer, Frank N. Whittier, Addison S. Thayer,

County News and Notes.

AROOSTOOK.

AROOSTOOK COUNTY MEDICAL SOCIETY.

The annual meeting of the Aroostook County Medical Society was held at Caribou Courthouse on June 14, 1921. It was a good meeting and well attended. Dr. Coombs, of Augusta, director of division of venereal diseases, gave an illustrated talk on gonorrhea and syphilis; Dr. B. L. Bryant, Secretary of the Maine Medical Association, gave a talk on medical defense and other subjects of interest to the profession; Dr. Risley, of Waterville, read a paper on "Modern Methods of Cancer Control," and Dr. Burgess, Councilor of this district, gave an interesting paper on "Conciliation, or the Settling of Difficulties and Differences among Members." These papers and talks were highly appreciated.

Do not take drugs to cure the headache, says the United States Public Health Service. Consult a physician, a dentist or an oculist, to see if the cause can be located. Often the eyes, or the teeth may be at fault.

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Physiotherapy

The remarkable results secured in the treatment of our wounded soldiers by the various physiotherapy methods used in the U. S. Reconstruction Hospitals have attracted national attention. The value of physiotherapy has been so clearly demonstrated that the U. S. Government has equipped many of the U. S. Public Health Service Hospitals with apparatus for use in physiotherapy.

Leading physicians now realize that physiotherapy can be of great assistance to them in their general practice. It has shown its value particularly in a large number of chronic conditions, and also in the treatment of occupational injuries received by mill workers and artisans of various kinds.

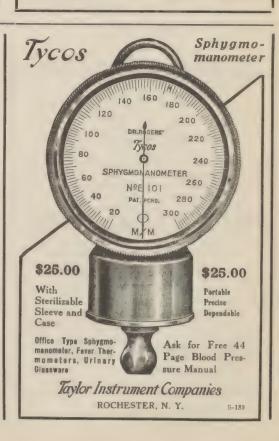
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Maine Representative



Dr. W. E. Sincock, of Caribou, was elected President for this year, with Dr. W. G. Chamberlain Vice-President, Dr. F. E. Bennett, Secretary and Treasurer, and Drs. A. L. Sawyer and J. H. Potter, Censors.

Five new physicians were elected to membership. They were Dr. H. C. Bunday, Bridgewater; Dr. George N. Beal, Caribou; Dr. Storey W. Boone, Presque Isle; Dr. Andrew Fazenbaker, Caribou, and Loren F. Carter, of Presque Isle, superintendent of Northern Maine Tuberculosis Sanatorium.

A letter from Dr. Whittier, chairman of the committee who is making plans for the reorganization and continuance of the Maine Medical School, was read and discussed, and a vote taken to see how many present favored and how many opposed its continuance. The vote was seven for and six against, with nearly twenty not voting. I'm sorry there was not more interest shown in this matter, but since the god vetoes nearly everything they thought it useless to protest further.

The next meeting is in Houlton about the middle of October.

DR. F. E. BENNETT,

Secretary and Treasurer.

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OF THE

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Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

Vol. XII.

SEPTEMBER, 1921.

No. 2

NEPHRITIS IN CHILDHOOD.

By JOHN LOVETT MORSE, A. M., M. D., Professor of Pediatrics, Harvard Medical School.

ETIOLOGY.

Nephritis in childhood is usually either acute or subacute. If chronic, it is almost invariably the result of a previous acute attack. Chronic nephritis is almost never due in childhood to syphilis, alcohol or disturbances of the circulatory system. Acute nephritis is almost invariably secondary to an infectious process elsewhere. The primary infection is most often located in the nasopharynx or its adnexa. The tonsils are most commonly the seat of the infection, but acute nephritis may follow a simple rhinitis or otitis media. Another common cause of acute nephritis is a suppurative process involving the teeth or gums. Acute nephritis may accompany or follow any acute infectious disease, especially scarlet fever or diphtheria. The importance of scarlet fever in the etiology of nephritis has, however, been much overestimated. It may be true, perhaps, that scarlet fever is more often accompanied by nephritis than any other disease, but the number of cases due to scarlet fever is absolutely much smaller than that due to infections of the throat. Pneumonia is seldom the cause of nephritis in childhood, while it may be due to such mild infections as chicken pox, impetigo and eczema.

CLASSIFICATION.

The classification of the diseases of the kidney in childhood on the basis of the pathological changes in the kidneys is even more unsatisfactory than it is in adult life. It is impossible to fit the findings in the urine to any special type of pathological lesions in the kidney. Furthermore, the lesions in the kidneys unquestionably vary materially from time to time in the same case, according to the duration and progress of the disease. Classification on the findings of the modern tests for kidney functions is also unsatisfactory and unreliable. A classification based on a combination of the symptomatology and the findings in the urine seems, therefore, simpler and more rational. The classification which I am in the habit of using is one developed by Dr. Lewis W. Hill from his study of our cases at the Children's Hospital (American Journal Diseases of Children, 1919, XVII, 270). While not entirely satisfactory, it is certainly true that the vast majority of the cases of nephritis in childhood fit fairly well into one of these classes. His classification is as follows:

Acute Hemorrhagic Nephritis.
Acute Exudative Nephritis.
Subacute Nephritis.
Chronic Nephritis, mild or severe.
Chronic Nephritis with Infantilism.

ACUTE HEMORRHAGIC NEPHRITIS.

In this type of nephritis the amount of urine is but little, if at all, diminished. There is usually no edema and never much. The urine is more or less red and contains a moderate amount of albumin. The sediment is made up very largely of red blood cells. There are never many casts and sometimes they will be entirely wanting for days at a time. There are usually a moderate number of round epithelial cells, and in some instances they will, for a time, greatly outnumber the red cells. In other instances, leukocytes will temporarily take the place of the red cells.

Children with this type of nephritis are usually not very ill. Most of them recover fairly quickly. Very few die. In a moderate number the disease changes into the subacute type, but very seldom becomes chronic. The blood pressure is but little, if at all, elevated and there is no enlargement of the heart. As a rule, the various tests show but little diminution of the functional capacity of the kidneys.

ACUTE EXUDATIVE NEPHRITIS.

In this type of nephritis the amount of urine is always diminished during the acute stage, often being as low as a few ounces in twenty-

four hours. There is always edema, which is often extreme and varies inversely with the amount of urine. The urine contains from a moderate to a large amount of albumin, the amount usually varying inversely with the amount of urine. The sediment contains many casts and epithelial cells. It also contains red cells, but never as many as in the acute hemorrhagic type.

Children with this type of nephritis are usually quite ill. A small proportion of them die with uremia. If they do not die, they are likely to recover entirely, as this type seldom runs into the subacute type or becomes chronic. The blood pressure is usually moderately elevated and there is often some enlargement of the heart. The tests for kidney functions show inability to excrete salt, an increase in the non-protein nitrogen of the blood and more or less interference with the elimination of phthalein.

SUBACUTE NEPHRITIS.

The subacute type usually develops from the acute hemorrhagic, but in some instances the symptoms are so slight from the beginning that the disease is apparently always of this type. It is often very difficult to state when the acute hemorrhagic ends and the subacute begins. The persistence of red corpuscles and casts in the urine after three months, without any marked symptoms clinically, probably justifies the diagnosis of the subacute type. The urine contains but little albumin, often none at all at times, and is not diminished in amount. The sediment shows a few red cells, epithelial cells and casts, the numbers varying from day to day.

The children usually look and feel well. The blood pressure is not elevated nor the heart enlarged. The various tests show little or no interference with the functions of the kidneys. Almost all of these cases recover entirely, although it may be two or three years before the urine is permanently clear. Occasionally one becomes chronic.

CHRONIC NEPHRITIS.

Chronic nephritis in childhood is a sequela of acute nephritis and is relatively uncommon. It is almost never of the chronic interstitial type seen so commonly in adults. It may be of so mild a type that the child looks and feels well or of so severe a form that the child presents all the clinical symptoms of chronic diffuse nephritis. The urine may be normal or greatly diminished in amount. It may contain much or little albumin. The sediment contains casts and cells of all sorts, but never blood, unless there is an acute exacerbation.

The blood pressure varies but is usually somewhat increased, never, however, to the degree seen in chronic interstitial nephritis. The size of the heart varies with the blood pressure. The functional tests show more or less impairment of functions, the degree depending upon the severity and stage of the individual case. The end is death, which, however, may be long delayed.

Chronic nephritis with infantilism is such a rare condition that it hardly deserves anything more than mention.

PROGNOSIS.

The prognosis of nephritis in childhood has already been taken up in a general way in discussing the various types of nephritis. The prognosis in the individual case is, however, far more difficult to determine. It is easy enough, of course, to know whether the child is in a serious condition at the time or not. It is not so easy to decide whether the child will eventually recover or not. Some of the cases, which are apparently very mild at the onset, run on for months or eventually become chronic, while others, which are apparently about to die of uremia, suddenly begin to improve and recover rapidly.

I have found the modern tests of kidney function of little more value in prognosis in acute nephritis than the appearance of the child and the condition of the urine. In the mild cases they show, of course, little interference with the functions of the kidneys, while in the very severe they show much. They give little information, however, as to the future progress of the case. Cases which show marked interference with the kidney functions may suddenly clear up and those with little disturbance run on indefinitely. These tests are of far more value in prognosis in the subacute and chronic types and are often of great assistance. The phthalein test and the test for fixation of gravity give, for practical purposes, as reliable information as the more complicated tests and can be easily carried out by anyone. The test for fixation of gravity is the more valuable.

The phthalein test is performed in the same way as in adults. The normal excretion in childhood is somewhat higher than in adults, however, averaging about 75% in two hours. Sixty per cent. is probably the low normal limit.

Under normal conditions the specific gravity of the urine rises when there are more solids to be excreted, provided there is no increase in the intake of liquids. The specific gravity of the urine rises, therefore, after a meal rich in protein and salts. The amount of urine diminishes and its specific gravity rises at night, unless extra liquid is taken during the night. That is, the normal kidneys are

able to excrete a urine of increased concentration when there is an increase in the amount of solids to be eliminated. When the kidneys are diseased, however, they lose to a greater or less extent their power to excrete a concentrated urine and can only eliminate the increased solids by excreting more urine of the same low specific gravity after meals and the quantity of night urine is increased and of low specific gravity. The test meals, devised by Dr. Lewis W. Hill, used at the Children's Hospital, are as follows:

Breakfast and supper:

Cereals,	2 tablespoonfuls.
Bread,	1 slice.
Butter,	½ cube.
Apple sauce,	2 tablespoonfuls.
Milk,	6 ounces.
Water,	4 ounces.
Extra salt,	15 grains.
Caffein sodium benzoate,	2 grains.

Dinner:

r:	
Chopped meat,	2 tablespoonfuls.
One egg.	
One potato.	
Butter,	1½ cubes.
Milk,	6 ounces.
Water,	4 ounces.
Extra salt,	15 grains.
Caffein sodium henzoate	2 grains

No extra water is given during the twenty-four hours. The urine is collected every two hours during the day, that is, from 6.00 A. M. to 6.00 P. M. The night urine, that is, that passed between 6.00 P. M. and 6.00 A. M., is collected together. The specific gravity of each specimen is then taken and the amounts of the day and night urine compared.

TREATMENT OF ACUTE NEPHRITIS.

The development of acute nephritis, at any rate of a severe type, is preventable in the vast majority of instances. It is almost a reflection on the professional ability of a physician who has a severe case of nephritis develop in a patient for whom he has been given a fair opportunity to care. In the first place, adenoids and clinically diseased tonsils should be removed before they have a chance to cause trouble. The teeth should be watched and, if decayed, filled or removed. If a child has any of the diseases likely to be accompanied or followed by inflammation of the kidneys, its routine should be

regulated along the same lines as if it had nephritis. Children that are kept in bed, given a low protein diet and much water relatively seldom develop trouble in the kidneys. The urine should be examined frequently in every acute disease, no matter how trivial, in order that the first signs of trouble may be detected. If nephritis is recognized early and properly treated, it rarely becomes severe. Furthermore, the urine should be examined during convalescence. No child should be considered well after any acute disease until the urine has been examined after it has been up and about for a week or more.

There is no drug, serum or vaccine which has any directly curative action on the inflamed kidney. When there is no directly curative treatment, the treatment of every diseased organ whose continued action is necessary for the life of the individual may be divided into two parts: the first comprising those measures which diminish the work which the organ has to do; the second, those which help the organ to do its work. Unfortunately, little or nothing can be done to help the acutely inflamed kidneys to do their work. The treatment of acute nephritis consists, therefore, in diminishing the work which the kidneys have to do.

The kidneys are excretory organs. In a general way they excrete the end products of fats and carbohydrates easily and those of proteins with difficulty. Water may or may not be easily excreted.

The proteins in the food should, therefore, be diminished. It is useless to diminish them below the minimum protein needs of the child, because, if these needs are not supplied, the proteins of the body will be broken down and the same load thrown on the kidneys as if the protein was taken in the food. The minimum protein needs of children are, approximately, at four years, 30 grams; at eight years, 35 grams; and at twelve years, 45 grams. It makes no difference to the kidneys whether the protein is of animal or vegetable origin. The proteins of meat, fish and eggs are no more harmful than those of milk. The amount of protein in the food, not its source, is important. The diet should be regulated, therefore, so as to contain only enough protein to cover the minimum protein needs. This is easily done by following any of the tables of food values.

The caloric value of the food may be kept up, in spite of the low protein content, by increasing the amount of fat and carbohydrates in the diet. Children of four years need a minimum of 1,200 calories daily, those of eight years, one of 1,400, and those of twelve years, one of 1,600. It is easy to supply these calories with the aid of the various food tables.

They are most abundant in the protein foods. This is another reason, therefore, for keeping down the protein in the diet. From this point of view meat and fish are not quite as suitable as milk. Broths and soups made from meat are more dangerous, however, than meat, because they contain most of the extractives of the meat. Furthermore, they have but little food value and contain much water, which may, of itself, be very harmful. No broths or soups should be given, therefore, to children with nephritis.

Other substances which are eliminated with more or less difficulty by the kidneys are phosphates, inorganic sulphates, hippuric acid and other salts. For practical purposes these may all be disregarded except common salt, which should be entirely cut out of the diet.

Water is a stimulant to the kidneys. Moreover, when a large amount of water passes through the kidneys, the substances which are eliminated by them are diluted, and hence cause less irritation. When the kidneys are acutely inflamed and congested, as in acute exudative nephritis, they are unable to eliminate water. Water then increases the congestion and irritation, is not eliminated and is retained in the body, this retention being manifested by edema and ascites. In the acute hemorrhagic and subacute forms water is more easily eliminated, but even in these types, if it is forced, edema and ascites develop. During convalescence water is excreted very easily and, because of its diluting power, should be given freely. The water intake should be watched just as carefully, therefore, as that of the protein, extractives and salt. If there is any edema, except possibly a little in the eyelids, the water intake must be kept very low. If there is very marked edema, it is advisable to keep it down to a few ounces daily. It cannot be eliminated and can do nothing but harm. If there is no edema, water may be given cautiously, watching at the same time the urine output and the weight. If the urine increases with the increase in the water and the weight does not, the water should be further increased until considerable amounts are given. If the amount of urine does not increase or the weight increases, the water should be diminished. The normal difference between the water intake and the urine output in children, other things being equal, is somewhere between ten and fifteen ounces. When the kidneys show that they can eliminate water freely, the water should be increased up to several quarts daily.

The work of the kidneys may also be diminished by catharsis. In this way certain of the substances which would otherwise have to be excreted by the kidneys or retained in the body are eliminated.

Water may also be disposed of in this way, but not as well as by diaphoresis. The bowels should be made to move several times daily, therefore, in every case of nephritis, and in severe cases with uremia free catharsis should be induced. The best drugs are those which cause large, watery stools, such as compound jalap powder, licorice powder or elaterium.

Edema is best removed by sweating. This is all that sweating does. It is certain that but little urea is eliminated in this way and there is no proof that toxic substances are excreted by the skin. Sweating should never be used, therefore, unless there is edema. It is far better and safer to induce sweating by the application of heat externally than by the administration of drugs internally. Pilocarpin, the only drug powerful enough to be of any practical use, is a very dangerous remedy and should never be used, therefore, except in an emergency.

It is possible that poultices and hot applications to the loins and hot colonic flushings may relieve congestion of the kidneys and thus hasten the re-establishment of their excretory powers. Personally, however, I am rather skeptical. It is also possible that bleeding may tide a patient over threatened death from uremia. I have seen a number of cases in which this apparently happened. On the other hand, however, I have seen as many others, seemingly in just as serious a condition, who were not bled and who likewise recovered. A procedure which seems rational in acute nephritis, when the kidneys are eliminating none or only two or three ounces of urine daily and the patient is on the verge of death from uremia, is Edebohl's operation of splitting the capsule of the kidney. This relieves congestion and gives the kidneys a chance to resume their functions. It cannot, of course, cure acute nephritis, but may tide the patient over an emergency. In my opinion it should be tried in every case of acute nephritis with suppression of urine and threatened death from uremia.

There are, as already stated, no drugs which have any direct curative action in nephritis. Nevertheless, there are a number of drugs which are used very commonly as if they had. It may be worth while to discuss these drugs and their actions briefly. They may be divided into three classes: digitalis and its congeners, caffein and the preparations of theobromin, and the alkalies.

Digitalis and drugs of its class have no direct action on the kidneys, but increase the flow of urine by strengthening the action of the heart, and thus sending more blood through the kidneys. The heart does not need stimulation in acute nephritis, however, and in

the acute stage the kidneys are already engorged with blood. Any form of treatment, therefore, which increases the flow of blood to the kidneys at this stage is not only irrational, but may be harmful. In the later stages it may no longer be harmful, but is unnecessary.

Caffein, theobromin and their preparations have a direct stimulant action on the renal epithelium. Their action on the heart is probably of no importance in this connection. Caffein by its action on the vasomotor center may cause such a contraction of the arterioles of the kidneys as to prevent any benefit from the stimulation of the epithelium. Theobromin and its preparations, such as diuretin, have no action on the vasomotor center, and are thus preferable to caffein. In the acute stage the renal epithelium is in no condition to respond to stimulation, and, moreover, stimulation may do harm by increasing the inflammation. In the later stages these drugs may be of use, but are usually not needed if the diet and the intake of water are regulated.

It is almost certain that alkalies have no direct effect on the activity of the renal cells. Their action is probably the same as that of other diffusible bodies which are excreted by the kidneys and which during their excretion increase the flow of urine. The effect of the alkalies on the total nitrogen excretion is a very uncertain one. When the nitrogen of the urine is increased by their use it is probably usually due chiefly to a flushing out of the tissues. In many cases the relative amount of urea is increased by the administration of alkalies. As the object of treatment at the most acute stage is to spare the kidneys, and as water at this time is irritating to the kidneys, it hardly seems rational to give alkalies at this time to increase the work of the kidneys. Later on alkalies are often useful. They are, however, but little, if any, more effectual than the water in which they are given.

Children with acute nephritis should be kept in bed. They should be warmly dressed and guarded against exposure and chilling. They should be kept in bed until the albumin has disappeared from the urine and in many instances until the urine is microscopically clear. When they begin to get up they must be most carefully guarded against exposure, their diet regulated almost as carefully as in the acute stage, water pushed and exercise limited. Their urine should not only be examined every few days for albumin, but the centrifugalized sediment should be examined under the microscope. No child should be considered to have recovered from nephritis until its urine has been free from albumin and the sediment clear of blood cells and casts for at least three months after the child has been living under normal conditions.

TREATMENT OF SUBACUTE NEPHRITIS.

The treatment of subacute nephritis is along the same general lines as that of acute nephritis. The same care is necessary in regard to the diet and the regulation of the water intake. If the children are symptomatically well, it is not necessary to keep them in bed after a few months, but after they are up they must be guarded and watched in the same way as children convalescing from acute nephritis. The same rule must be followed in them also in determining when they are well.

TREATMENT OF CHRONIC NEPHRITIS.

The treatment of chronic nephritis is also along the same general lines. It is not advisable to limit the diet quite so strictly, however, if the limitations prove too irksome, because, when a disease is certain to be ultimately fatal, it is not fair to disregard the desires of the patient in the same way which would be obligatory if there was a chance of recovery. The same rule should apply in the regulation of the child's life and amusements.

In conclusion, nephritis in childhood, at any rate in its severe form, is, to a considerable extent, a preventable disease. The prophylactic treatment is the most important. When nephritis has developed the treatment is dietetic and hygenic. Drugs are of little use, except for the relief of symptoms. The prognosis of acute nephritis is usually good, and chronic nephritis seldom develops from acute nephritis if the treatment is rational and kept up for a sufficient length of time.



A STUDY IN EVOLUTION.

By Margaret Justina Worcester.

"Lip reading is judicious guess work" said Mrs. Alexander Graham Bell, in an article written many years ago, giving her personal experiences as a lip reader This statement holds as true to-day as when it was written, the only difference being that since that time the teaching of lip reading to the hard-of-hearing or deafened adult has slowly evolved from the go-as-you-please teaching of early days

into a science, becoming more and more exact as the experience of teacher after teacher is given to the profession.

The pioneers in the work had little to go upon beyond their experience as teachers of deaf children, "deaf mutes," as they were commonly called. A congenitally deaf child has no idea of speech or of language and has to be taught slowly and painstakingly to consciously use its voice; the fact that all objects and actions have names and that the normal world communicates through the use of these name words, either spoken or written. There can be no speech reading until this idea of speech as a medium of communication is developed. As is the case with all children, only to a greater degree with the deaf little one, the vocabulary will for a long time be limited and confined to simple language ideas and forms. Thus to a child taught by the pure oral method speech reading and the comprehension of language go hand in hand, the former being the means by which the latter is developed. It is thus that the mother teaches her baby speech. The difference between the normal and the handicapped child's acquisition of language is that one receives it through the ear, the other through the eve.

When it came to the teaching of speech reading to the deafened adult it was soon recognized that the slow, laborious method used with children who were at the same time acquiring speech was not the proper one for a person with fixed mental habits of thought and a full and varied vocabulary, to one conversant with men and affairs.

Various attempts were made to formulate a satisfactory method. One of the earliest was the "Warren," shrouded in mystery, as the pupil was required to pledge himself under oath to reveal to no one the method by which he was taught. Suffice it to say there were an elaborate series of diagrams depicting the position of the organs of speech for the various sounds. The pupil studied these and also his own mouth in the mirror as he uttered the sound. This cumbersome and awkward method did, however, produce some good lip readers. The most striking example I have heard of was one of the two Holland brothers, well-known actors twenty years ago. Mr. Holland continued to play in repetoire after he became deaf, reading his cues from the lips of the cast, and so beloved was he that the rest of the company were on the watch to prompt him if he failed to see his cue. How many of his audiences at "The White Horse Tavern" realized this?

After awhile the two methods which later gained nation-wide recognition came into being, the Muller-Walle method, an exposition of which appeared in this JOURNAL several years ago, and the Nitchie method. Briefly stated the following are the characteristics of each.

The Muller-Walle method was translated and adapted by Miss Martha E. Bruhn, of Boston, from the German method originated by Herr Muller-Walle. The fundamental classification of sounds was really a stroke of genius on his part. The grouping of the sounds in the first lessons cannot be surpassed. The eleven sound positions in the first lesson are all easily visible, and from these sounds, those homophenous to them and the secondary spellings more than one hundred and fifty sentences can be formed. The subsequent lessons take up new groups of sound positions with such ease and simplicity that the pupil has no chance of becoming confused. The fact that so much can be read in the first lessons encourages the pupil and gives him the self-confidence necessary to successful lip reading.

The Nitchie method was originated by the late Edwin B. Nitchie, of New York. Mr. Nitchie, as well as Miss Bruhn, knew from sad experience the depression and unhappiness which must, of necessity, envelop an adult as he or she finds the world of sound becoming more and more a closed world.

Mr. Nitchie was a man of strong intellectual force. To him the mental factor was the dominant one. He studied deeply into the psychology of the deaf adult and worked out a method whose dominant appeal was to the mind of the pupil. He believed that eye training was essential, but that mind training was even more so. His arrangement of sound positions and the resulting exercises had not the simplicity and clarity of the Muller-Walle method, but the appeal to the mental factor was stronger. The Nitchie stories required the exercise of the "judicious guess work" of which Mrs. Bell wrote. The pupil was led along and encouraged to seek for the thought of the speaker even when much of the spoken language was not recognized.

Normal pupils were trained by both Miss Bruhn and Mr. Nitchie, and as these new teachers settled in different places the gospel of the possibility of the re-entry of the hard-of-hearing and the deafened adult into the social and business world spread. It could not be otherwise with the inspiration Miss Bruhn and Mr. Nitchie brought to their work.

About seven years ago Miss Cora E. Kinzie, a college woman and a medical student, full of the desire to be of service to her fellow men, was stricken with deafness. While not total, it was of such a degree that she saw as in a night her lifelong ambition to become a medical missionary destroyed. In fact, it was not possible for her to continue her medical studies with success.

The blow was a staggering one, but, pulling herself together, she

realized that her happiness and usefulness required that she become as expert a speech reader as possible. Studying into the subject she went to Boston, taking first the student and then the normal course with Miss Bruhn. Later she took the Nitchie normal course and started in Philadelphia as a teacher of the deaf adult. As she studied her own progress toward the goal of perfection in speech reading, and watched the progress of her pupils and studied into their mental processes, there came to her what has come to many of us who are teachers of adults, the realization that here a change in material, there one in method, would make the progress of the learner an easier one.

The time came when the belief that by embodying the best of both the Muller-Walle and the Nitchie methods into one, together with the results of her own personal and professional experience, she could produce a third method, a step in advance of either, took strong possession of her. For several years she and her sister, Miss Rose Kinzie, worked upon this idea. As a result the Kinzie method has come into being. It has been for some time a finished product and yet the lesson material is still in a process of growth, for whenever any improvement in sentence or story suggests itself it is tried out and, if satisfactory, incorporated into the text. Other duties permitting, it is hoped to publish the Kinzie textbook sometime during the fall or winter. Thus once again a seeming great personal calamity became a means of bringing aid to others similarly afflicted.

I had been following the growth and development of the Kinzie method for a couple of years with increasing interest, and this season decided to take a post graduate course at the Kinzie School in Philadelphia, feeling sure it would be of value. I found it even more so than I had hoped.

With the permission of Miss Bruhn, the Kinzie method has retained the simplicity of the sound classification of the early lessons of the Muller-Walle course. Also it has embodied the spirit of the Nitchie psychology. To me it is a logical step in advance, and this with no undervaluation of the two other methods either as to their past or present usefulness.

More and more there is growing up a spirit of co-operation in the profession. This has been greatly fostered the past two years by national conventions, where leading teachers of all methods, and from all parts of our country, have met together, and through papers, demonstrations and personal contact begun to work together for the common good of those suffering under this disability. A progressive teacher knows the reputation of others in the profession and is ready to recommend the best teacher in a given locality, regardless of method.

To return to the Kinzie method for a moment. There is, as I have said, simplicity as to material and its presentation. Much preliminary explanation is eliminated. This point impressed me strongly. The method of procedure is this. The new sound movement is shown and explained. A vocabulary founded upon the positions of this lesson and those of the preceding is given on the lips until mastered. This is for eye training and accuracy. Then follows a list of sentences, one for each vocabulary word, which is given by the teacher and repeated by the pupil, and this word when followed by its sentence serves as the "key" and aids in reading a sentence several words of which are unknown. This exercise, too, makes for eye training and accuracy, but also for the training of the mental factors. Here, again, comes in our text, "judicious guess work." Then follow more sentences, without a clue this time, but using the material previously developed in the lesson. Last comes a story and questions upon the story. The story has a place of its own, as it is designed when given in the Kinzie way, first for the thought and then for the words, to develop all the powers of the mind-the synthetic and intuitive powers, alertness, quickness of perception, concentration and at the same time the visual memory and the subconscious knowledge of movement. This balanced plan of work may be said to be the crux of the Kinzie method. Each part, each exercise, is designed to develop one or more of the physical or mental faculties necessary to expert lip reading.

The criticism was made recently that such an elaborate lesson text did away with the personal equation between teacher and pupil. This is not so, as the experienced teacher always has and always will wisely adapt her material to the case in hand. Also, if the work is to expand and spread it must be standardized as is the work in all professions.

The spiritual side of the teacher's work is not to be overlooked. Depression, despondency, the desire to withdraw from society are, as aurists know, the unfortunate concomitants of the early stages of deafness. We can do much for our pupils at this stage by altering their outlook, giving them a new viewpoint, courage, hope, interest, and the desire to, as far as is physically and mentally possible, overcome the disability which is so soul crushing and such an economic handicap.

The greatest pleasure which can come to a teacher is to see, through her efforts, the pupil gradually "come back" and valiantly "carry on" in the new conditions of life, while the teacher's greatest reward is found in the earnestly spoken word of thanks: "I have

found I can be happy even though deaf." "Through you and your spiritual help life is again worth while." Or from some member of a loving family, "——is like her old self since she became interested in speech reading."

REPORT OF SEVERAL RARE CASES OF SKIN DISEASES.

By ROYCE B. JOSSELYN, M. D., PORTLAND, ME. URTICARIA PIGMENTOSA (Macular Form).

Little girl, aged 2½ years, presented on examination brown round and oval areas irregularly scattered over thorax, abdomen and back. More exposed surfaces, as limbs and face, were not involved. Mother said the child had had present trouble for about 1½ years, and that lesions were at first raised and looked like bee stings. She said that they had gradually flattened down and taken on brown color, at first yellowish brown and now distinctly brown. The child was apparently in good health. At present the skin over colored areas is flat, but after rubbing vigorously with the hand distinct wheals form at site of brown spots. The age and mode of onset, chronicity and location of lesions and formation of wheals on rubbing are evidence in favor of urticaria pigmentosa.

A condition closely resembling the above is phenolphthalein poisoning, chronic, following long use of laxative phenolphthalein preparations. In this disease the distribution is more general, and colored spots are tawny yellow-brown and no wheals are present.

Urticaria pigmentosa, as above described, is also to be differentiated from the adult form of pigmented urticaria.

Nettleship first reported a case of urticaria pigmentosa in 1869, and about one hundred cases have been reported since then, the majority of them in England.

Treatment is said to be of little use, the disease going away about the age of puberty. The usual treatment for urticaria may be tried, however.

XERODERMA PIGMENTOSUM.

Italian girl, aged 3 years, presented on examination yellowish-brown spots on face resembling freckles, between which the skin appeared normal in places, and elsewhere small wart-like growths, ulcers and areas of atrophy were present. Ectropion was marked from contraction of scar tissue in the lower lids. Photophobia was also marked, and telangiectasia present. Lesions were confined to the face, neck and to less extent the arms and hands. Father and mother are living and well. Two other sisters, aged 2 and 6 years, are also normal. The present condition began at age of 7 months with what seemed to be ordinary freckles. The disease became more pronounced gradually until various features above described developed.

The disease is fatal, as epitheliomata tend to occur in the lesions. Surgical removal of malignant lesions occurring in this disease, as reported by Crocker, has prolonged life, in one case nineteen years. The treatment of choice is X-rays.

Xeroderma pigmentosum was first described by Kaposi, of Vienna, in 1870. It is a very rare disease, only about eighty cases appearing in the literature.

July 6, 1921.

Necrology.

WILBUR ALLARD BUMPS.

Dexter, 1855-1921.

After a paralytic stroke in 1920, a successful operation for appendicitis and an unsuccessful one for acute intestinal obstruction, Dr. Bumps died Friday, March 11, 1921, a victim, as one might say, of odd numbers. He was a son of Benjamin Franklin and Martha Hollis Bumps, and was born at Milo, April 26, 1855. After three years at the University of Maine he obtained a degree of C. E. In his college years he was a fine athlete, a great favorite, a wonderful back stop when masks and protections were unknown, and very fond of boxing, giving instruction therein at various times and places.

He attended a course of lectures at the Bowdoin Medical School, and obtained his degree at the University of New York in 1879. He then settled in Dexter, added to his income by teaching in the grammar and high schools for some years, and continued his interest in the public schools for the rest of his life. In Dexter he married Miss Etta Gould, who died some years ago.

Dr. Bumps was a self-concentrated man, was shrewd with his earnings, held on to the money that he made and multiplied it largely. He rarely attended medical meetings, never discussed the papers read there and never presented a paper. He once applied for membership to a society, and on being asked what he thought of ethics he replied that they were too idealistic to suit him. He was, therefore, given a copy of the code to study, and after a thorough examination he obtained admission a year later on.

The brightest and most praiseworthy characteristic of our late associate is well worth recalling and to this effect: that whenever a club of Bowdoin boys came to Dexter, for sport or games or song, he never failed to meet them, to welcome them with great hospitality to the town, to see that they enjoyed every minute of their stay and had a packed audience to welcome them with well-deserved applause.

CHARLES FRANCIS THOMAS.

Caribou, 1847-1921.

It is not often in these days that a memorial service is held in honor of any physician, and yet it is not so long ago that such services were frequent, and Portland once honored a magnificent medical personage with eulogies in two different churches. So when the people of Caribou held a service for Dr. Thomas they were gratefully trying to recall how, for small rewards, he had been good to them in sickness for more than forty years.

Dr. Thomas, the son of Joseph William and Jane Roberts Thomas, was born in Palmyra, September 27, 1847, educated at Pittsfield Classical and Bates, and after attending one course of lectures at Bowdoin obtained his medical degree at the Long Island Hospital Medical School in 1871. He paid his way by laboring on farms and in lumber camps. Nothing in later life pleased him more than to tell to interested listeners his adventures amidst such surroundings in the wilds of Maine.

Soon after obtaining his degree he settled in Caribou, a slender man, straight as an arrow and with a marvelous physique, which alone carried him through his long journeys in visiting a scattered population. Yet he lived to see Caribou bloom into a flourishing town and to become one of that curious triology of people, Caribou, Presque Isle and Fort Fairfield, each a bit envious of the progress of the other, yet all proud of their three towns, unequalled in New England farm life for vicinity, yet aloofness.

Dr. Thomas practiced from Houlton on the south to Fort Kent on the north, from fifty miles east over into New Brunswick, and to the great lakes of the county, fifty miles to the westward. This region he covered before the day of the motor car. He rode more miles in chaise, buggy and sleigh, and over the worst of cordurov roads, than any other physician of his time. He was fond, too, of saying in winter, when snow had begun to fall: "Well, children, here comes a storm, and it is the very sort of a night when somebody will call me off to Stockholm, miles away." Sure enough, about ten a knock would be heard on the door, and off in his sleigh the good doctor would go, and keep going until the drifts became impassable, when he would put on his snowshoes and make the rest of the journey in that fashion. Many an early farmer has seen this brave physician coming home at sunrise, fast asleep in his chaise or sleigh, and his steady horse plodding slowly along so as not to disturb the weary driver. Lawlessness was by no means rare in the early days of his

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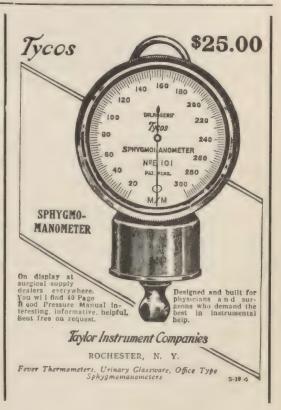
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practice, and for several years he went well armed, but later in life, having never been attacked on his errands of mercy, he left all weapons at home.

As his son became a partner in medicine the practice enlarged enormously, but when the younger man went to the Great War the father took upon his seventy-yeared shoulders the labors of both until he broke down. Then came an inflenza epidemic and the elder man went to work again, but the end was now approaching. Weary of his years of labor, he set off with his devoted wife for the South on his seventy-third birthday, and in Miami, Florida, he for a while improved. Then in a hospital, December 28, 1920, he died suddenly and peacefully from cerebral hemorrhage.

Many years before he had married Miss Ida Atland Roberts, who, with a son and three daughters survives him.

Dr. Thomas did not write much for medicine for he had not the time, but his presidential address as head of the county society was finely done, and he was always glad to discuss papers read by other members. He was a splendid example of a man of honor in the hearts of the people, and as a physician skillful and resourceful for those who employed him; and some families employed him to the last, through more than forty-five years of absolute trust in his learning, benevolence and kindness of heart.

Correspondence.

Worcester, Mass., June 28, 1921.

To Dr. Addison S. Thayer, Portland, Me.

My dear Dr. Thayer:—My brothers—Dr. Homer Gage, Mr. T. H. Gage—and I have recently had an unusual experience. Dr. Gage received a check for \$432.75 with the request that it be distributed among the heirs of Dr. Leander Gage, of Waterford, Me., our grandfather.

The sender, Mr. Charles M. Chamberlain, of Maspeth, Long Island, a native of Waterford, Me., wrote that in 1855 he heard his father express regret that he had not been able to pay Dr. Gage, his family physician, \$75.00 which he owed him, and that he then resolved, if he was ever able, to pay the bill. He accordingly enclosed a check for the amount and seventy-nine years' interest.

Dr. Leander Gage died in 1842. It happens that his account books are extant in his house in Waterford, now the property of my brother, T. H. Gage. He looked them over and found that the account in question, instead of being \$75.00, was \$59.57. Mr. Chamberlain had overpaid it by \$93.83. Mr. Gage accordingly returned this amount and distributed the remainder.

Our combined shares are a quarter of the total, and my brothers and I would like to use it in some appropriate way enabling us to place on record this remarkable story of New England integrity, filial loyalty, and a doctor's bill.

It is a Maine story. Dr. Leander Gage was a member of the Maine Medical Association. Will you kindly tell me whether that Association has headquarters—a building or rooms—devoted entirely to its own use, and might it be possible for us to make to the society some gift of permanent service?

Yours very truly,

MABEL C. GAGE.

Dr. Thayer requests that any member of the Maine Medical Association who has an inspiration concerning the form which this gift, proposed by grandchildren of Dr. Leander Gage, might appropriately take should communicate his suggestion to Dr. Thayer, in order that it may be considered by Miss Gage and her brothers.

Augusta, Me., Sept. 8, 1921.

Editor Maine Medical Journal,

Portland, Maine.

Dear Sir:—On account of the confusion arising from the similarity of names, and having given up all hope that the physicians of the State will ever learn in any other way that there are two of us, I respectfully request that you publish the following information:

Dr. George H. Coombs, formerly of Waldoboro, is director of the Division of Venereal Diseases of the State Department of Health. I am still in private practice, as usual, and located at 283 Water St.

Fraternally yours,

GEORGE A. COOMBS.

Notice.

THE MODERN METHOD OF FEEDING INFANTS.

Modern infant feeding calls for a formula suited to the individual requirements of the individual baby. The physician now realizes that an infant deprived of breast milk must be fed as an individual. The nourishment from the infant's food is principally derived from cow's milk. The 'foods' contain no mysterious life-giving elements, but are used as modifiers. As such they are indispensable for their carbohydrate content, the added carbohydrate being necessary to make up for the loss of carbohydrate when cow's milk is diluted with water. It is also important that these 'foods' are given as carbohydrates and should not contain a mixture of vegetable protein and fat, since the cow's milk supplies animal protein and fat in proportion suitable for the growth of most babies.

Infant feeding should be directly under the control of the physician. Realizing this important fact, Mead Johnson & Company, of Evansville, Ind., have manufactured a line of infant diet materials suitable for the individual requirements of the individual baby. These products do not carry laity directions on the trade packages. Such directions on a package of food is the insurmountable wall that differentiates between individual infant feeding and indiscriminate infant feeding. The physician may prescribe Mead's products with perfect confidence.

Mead's line of infant diet materials consists of Mead's Dextri-Maltose (Dextrins and Maltose), Barley Flour, Dry Malt Soup Stock, Casec (Calcium Caseinate, for preparing Protein Milk), Arrowroot Flour and Cerena, all of which are supplied without any directions on the packages. Over and beyond the gratifying results obtained from Mead's products, the physician is given unlimited scope to his own creative talents, hence there will be a greater number of better babies in his immediate neighborhood. The mother who uses Mead's diet materials at the direction of her physician is disposed to place credit for the welfare of her baby where credit belongs, i. e., to the doctor. The Mead Johnson policy means the realization of an ethical ideal.

Interesting publications on infant feeding, prepared by Mead Johnson & Company, are well worth writing for. Letters addressed to them will receive personal attention from their Scientific Department.

COUNTY NEWS AND NOTES.

SOMERSET.

SOMERSET COUNTY MEDICAL ASSOCIATION.

The Somerset County Medical Association held their annual meet-

ing at Lakewood, August 4th.

The program consisted of papers by Dr. E. G. Abbott, of Portland, on "Early Diagnosis of Bone Diseases in Children"; by Dr. T. E. Hardy, of Waterville, on "Medical Defense"; by Dr. Bertram L. Bryant on "Matters of Interest to the Society."

After the papers a lobster dinner was served by the Lakewood

Hotel management.

The following officers were elected:

President-Dr. C. A. Moulton, of Hartland.

Vice-President-Dr. O. J. Caza, of Skowhegan.

Secretary and Treasurer—Dr. C. E. Richardson, of Skowhegan.

Censor for Three Years-Dr. L. A. Dascombe, of Skowhegan.

Delegates to State Convention-Dr. H. W. Smith, of Norridgewock; Dr. C. E. Richardson, Skowhegan.

It was voted to hold the next meeting at Bingham, at some date to be selected by the Censors in October.

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OF THE

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All papers, case reports, etc., should be typewritten when possible.

Proof-sheets will be sent to the author when requested.

Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

Vol. XII.

OCTOBER, 1921.

No. 3

*HOW TO MEET SOME DAILY PROBLEMS OF THE GENERAL PRACTITIONER.

By HARRY E. MARSTON, M. D., North Anson.

For the purpose of this paper I shall speak of some of the problems that come under three heads, namely, preventive medicine, diagnosis and treatment.

While preventive medicine in a general way has been practiced by us for years, yet too little study and attention have been given to it until recently. Our problems in preventive medicine are largely due to the ignorance and prejudice of the public. To correct these our departments of public health, both federal and state, are laboring. But each of us must do his part to help, since many people will believe their family physician and do as he directs when they would not follow other teachings. That means that we must keep abreast of the times in public health work. Perhaps the best example of what education can do to prevent disease is in the case of tuberculosis. Not many years ago, no precautions were taken to guard the family or the public from becoming infected from a tuberculous person. With the coming of a more general knowledge of the ways of communicating this disease, and of the methods of prevention, a marked reduction in the number of cases has resulted, even though the physicians are now recognizing the disease better than before and are reporting cases better.

*Read before the annual session of the Maine Medical Association, June 28, 1921.

Through examinations of school children, systematically carried out and continued throughout school life, many defects that would be disastrous to the later health of the child can be found and corrected. In our town, I had the privilege of examining all pupils up to high school grade in what we call the upper end of the town. The number of children with defective hearing, eyesight, tonsils, adenoids and teeth was a revelation to me. A report of these defects was sent to parents, but in many cases no attention was paid to it. A second report was sent out at the beginning of the next term where no action had been taken. Not over 40% of these children had attention given to their defects. Why? In some cases, because the parents did not realize the need; in others, because they were poor; in one case, because another physician said it was not necessary. To overcome this neglect we must have co-operation of parents and devise methods whereby those not able to pay regular prices can have work done at special rates. My idea would be for the local physicians and dentists to make a special price where necessary, this to be paid by parents with assistance of town if necessary. In case the town does not have a dentist, let the town, school superintendent, or board be empowered to hire a dentist to devote the time needed to do the necessary work; the same for oculist or for other work needed. It is to be understood that the parents pay a fair proportion of the charges. Such money spent by a town would be a good investment financially, because of better development and less sickness in the community. The employment of a school nurse, as is now done by many towns, is an important advance toward the education of the public in matters of health. It is only a question of time before all towns will be obliged to employ a school or district nurse in order to get state aid for their schools.

The second head is diagnosis. One of our professors at medical school was wont to make the statement that a correct diagnosis was the most important step in a case. While this is important, yet we do not nowadays treat diseases always, but rather symptoms. Often, if we waited to be certain of our diagnosis before treating, we would have to treat a corpse. Those of you who enjoy a city practice have available specialists when symptoms are confusing, masked, or the case is critical. But we of the country often cannot avail ourselves of such services. Furthermore, because of the distances we have to travel to see some of our patients, we cannot follow the case closely, nor can we always use some of the finer methods of diagnosis. Most of us cannot afford many of the needed appliances. Whenever our diagnosis is doubtful or when a patient is not doing

as well as we think he should, it is clearly our duty to acknowledge this to patient and family and to ask for a consultant, preferably one who has made special study of such cases as we think this comes under. We have much to gain from such a consultation, as we acquire knowledge, and the family feels that we are fair and honest with them.

In February, 1920, I confined a woman. On the fourth day after, her temperature was normal. About the seventh day I was called to see her, as she had a high fever. For five days the temperature ran from 99.6 to 103. Patient perfectly comfortable. I could find no symptoms other than fever. I told the family I did not know what the trouble was, and we decided on a consultation. The consultant made a very careful examination, but was unable to find any symptoms other than fever. On the seventh day slight abdominal tenderness, tympanitis, characteristic tongue, etc.. with positive Widal, made diagnosis clear. Had I not asked for a consultant someone else would probably have been asked to take the case.

Through the work of the State Laboratory of Hygiene much needed help has been given in diagnosing cases. Some of our doubtful cases of typhoid fever have been cleared up by a Widal or feces examination.

Sometimes we have to contend with ignorance of a brother practitioner or with his desire to get business at our expense. I well remember a case that I was called to see my second year out of school. The family physician was away when child was first taken sick, so I was called. The symptoms and chest findings made a diagnosis of lobar pneumonia easy. While the child was sick, yet its condition was good. The second day the child was sicker, but I could see no alarming symptoms. The parents wanted their regular physician to see the case and I asked him to do so. I could not go with him, but he made the call. He told them it was a very serious case of typhoid pneumonia and took the case out of my hands without consulting me. On the fifth day temperature fell to normal and stayed there. I was tempted to say something to family and physician in defense of my diagnosis, but did not, which course I have since found to be the wiser.

Every difficult case is a problem in itself. Fortunately our modern textbooks are devoting more space to the atypical cases. A prime requisite for skillful diagnosing is exact observation of our cases together with extensive reading and study. If we could get away for post-graduate work a few months every three or five years our ability to size up a case would be much greater.

Most of the problems of the general practitioner come under the third heading, namely, treatment. In the first place, much of the work on treatment apparently has been written by men with every device at hand, who have no idea of the limitations of a general practitioner. Reading some methods for treating diseases reminds me of a nurse, accustomed to work among the wealthy, who was employed on a case of mine. If the family had furnished half the things she thought necessary they would have been bankrupt. made no distinction between the necessities and the luxuries. man in general practice has his poor patients and he must learn to confine his orders to the necessities. Sometimes even these are beyond the means of the patient. It has been suggested to me that every town or village have a community cupboard, supplying such articles as hot water bottles, ice bags, bed pans, etc., to those in need. This is a good idea, and would relieve us of much trouble and expense. Too often the doctor has to supply such articles, only to lose track of them.

Lack of care of a patient often causes serious trouble, perhaps death. In a town this could be in a measure overcome by the employment of a district nurse. Many of our patients would employ a so-called experienced nurse, but not a trained nurse. In our section we try to train a few women who want to nurse so that they may be competent to follow our directions, keep the patient clean and comfortable. They are not competent to care for critical cases, but answer the purpose in moderately sick cases.

The question of dispensing drugs is one that must be met by each according to conditions in his locality. The ideal way would be to write a prescription for just what we wanted and have it filled at the nearest drug store. Thus we could prescribe just what we thought the case required. Unfortunately many of us cannot do this, both because of the distance of our patients from a druggist and also because oftentimes the druggist does not have on hand what we want. In both cases much time is lost in beginning treatment. Even though we had the knowledge, most of us have not the time to do our own compounding, so there has resulted the large pharmaceutical houses which supply us with many of our preparations which we dispense directly to the patient. Many of us have found this method the most satisfactory. Most of the large houses are reliable (it pays them to be), while the drugs supplied by some of our druggists are bought more with the idea of profit than of quality. In buying of these firms, let quality rather than price determine which ones you will patronize. By doing our own dispensing we avoid any chance of a patient continuing the use of a preparation longer than we wish, which might happen with a prescription, it being refilled contrary to the intention of the prescriber. Such a case I have in mind. One bad feature about employing the products of our pharmaceutical houses is that there is a tendency to use their products empirically, because we are told that a certain combination is good for certain things, rather than to study the combination to see what its action should be. We let them do our thinking for us.

Regarding the prescribing druggist and patent medicines, I believe there is much truth in the statement made by a speaker at the recent session of the A. M. A., that their hold on the public could be largely counteracted if the public were better informed as to what the physicians were doing.

There are many other problems more or less common to us all which lack of time prevents mentioning.

To sum up these conditions under their different heads.

PREVENTIVE MEDICINE.—In broadening the scope of preventive medicine it is necessary that the physician and the public co-operate; that the physician take the lead in keeping informed of advancements along this line; that regular inspections be made of all children of school age; that district nurses sufficient to aid the physicians be provided, and that some provision be made for financial aid in those cases where the families cannot stand the entire cost.

DIAGNOSIS.—Owing to the inability to obtain the specialist's assistance and implements, each general practitioner must perfect himself in clinical work, both by careful observation and by study. Some of the lack of specialists may be overcome by each man in a region devoting a little extra time to perfecting himself in one branch.

TREATMENT.—Training of women as experienced nurses, encouraging of the well stocking of community cupboards for those who cannot provide the necessities for proper care, and care in the selection of drugs.

*THE GENERAL PRACTITIONER AS A BUSINESS MAN AND CITIZEN.

By D. M. STEWART, M. D., South Paris.

The practice of medicine, like most other business, has been somewhat disturbed by the recent war and is being considered from new angles and with increased interest by medical men and laity alike. Much business is already returning to its former level, and without doubt that tendency will extend to the practice of medicine. The question arises whether certain changes are not needed and if the time is not opportune for a new understanding between the public and the medical profession.

Since it is the aim of all good citizens to eliminate disease and to promote health, to abolish suffering and to increase happiness, thereby creating a stronger and a wiser race, it should not be difficult to get complete and active co-operation between the medical profession and the people it serves. Disease is coming to be considered a public as well as a private affliction and the management of it a national problem more than a private burden. Therefore we must expect any group or class of people entrusted with authority and responsibility in this line to be subjected more and more to the light of public criticism; so it may be well to ask ourselves: Is the business of handling disease being done right? Are we spending our time and energies to the best advantage?

Perhaps we should at once admit that the method of rewarding the physician for his services is a matter open to criticism, that to profit by disease and not by health is unsatisfactory, that the payas-you-die system is fully as obnoxious to the doctor as it is to the patient. This condition is an old one and has been fully discussed and freely condemned; also many suggestions have been offered in the way of correction, such as health insurance and state control of medicine. These have been quite universally opposed by the medical profession as being contrary to its best interests. This position is an awkward one and the value of such a policy is questionable. It would seem that any change which assists in promoting health should be welcomed by all, and in elevating to a higher plane the business of medicine, I believe, it will help the average physician, and if there are some among our numbers who are receiving an unreasonable reward for their services, the sooner that condition is corrected the better for all.

*Read before the annual session of the Maine Medical Association, June 28, 1921.

That some change in the method of dealing with disease is needed and that a chance for improvement exists will perhaps be quite generally admitted. Then who is responsible for the situation and whose business is it to bring about the needed changes? Quite evidently this privilege belongs to the leaders in that line, the physicians. But no general ever wins a battle, neither does an army win a war, but everybody's bit added to the common fund of energy finally decides the result.

There is a growing belief among thinking people that too much sickness exists; yet these same people feel little individual responsibility in the matter. During health they regard the doctor much as they did the regular army during peace. They do not understand that to win peace without conflict is infinitely greater than all the spectacular heroism of an exhausting war.

The relation between physician and patient is an old one, selected by the test of centuries and made sacred by custom and by law, therefore any suggestions for improvement should tend to strengthen this relation rather than to supplant it by untried theories. If the medical profession is to supply leadership and initiative in a crusade against disease, it is necessary that they work in harmony and with unity of purpose, also that the policies be broad enough to allow individual expression and that changes be gradual and made permanent by proven merit.

Progress in medicine usually means how much technical advancement has been made by the wisest specialist; but should it not also mean how much general knowledge has been gained by the poorest practitioner, or even, how much practical information has been assimilated and utilized by the average citizen? Medical knowledge is of little value unless passed down through the profession to the people. The fact of knowing is of slight importance unless it is applied, and the breadth and thoroughness of the application should determine the true value of such knowledge.

A real field of medical progress now lies outside the profession. Ignorance of the importance and indifference in the application of the so-called little things of health presents the first barrier to advancement. Health and sanitation cannot advance much faster than the people's knowledge in these branches. If public opinion, directed by the medical profession, should demand that all sickness reasonably preventable be stopped, that human energy be appraised at its real value, that pain and worry be given a proper financial rating and that a legacy of good health and sanitary surroundings be passed on to the next generation, then surely there will be work for all.

Universal education presents the logical, conservative and permanent method of gaining the desired end. In a campaign of general education the family physician must be considered as an important factor. His field of endeavor has been gradually narrowed by specialists of various kinds, because they could do the work better, but in educating the people and influencing them in their daily lives, no one can do the work better, for no one else knows so well their errors and their needs; no one even partially fitted to do the work understands so well their problems and their difficulties, their mental state and the degree of receptiveness which exists toward corrective changes. Then, if he continue to exist, the general practitioner will be a potent factor in the situation; his sympathies must be enlisted, his services broadened, his education improved and his recompense adjusted. Without weakening in any way his relation with the individual, he should take on a community responsibility and accept his position as a link in the chain of social progress.

But someone may say, "If half the disease is abolished only half the doctors will be needed. What will the other half do?" It is doubtful if increased knowledge on the part of the public, with the consequent reduction of disease, will reduce in any degree the demand for medical advice, although even that result may be necessary, for the supply of general practitioners is becoming less each year. Already a serious need of physicians is being felt in the rural districts; but we are told that this is the result of the war and will soon be corrected.

Let us consider a few facts taken from data collected by the Council on Medical Education of the American Medical Association, covering the past sixteen years.

The total number of medical students graduating in the United States in the year 1904 was 5,747. The total number graduating in 1920 was 3,047, a decrease of 2,700, or 47%. Of this decrease of 2,700, 2,153, or about 80%, occurred before 1914, while war was still believed impossible. Consider, also, the increase in population during that time, and the number of people to each graduating physician has more than doubled. The cause for this is readily seen, i. e., the increased cost of medical education in both time and money, and the failure of the work to yield satisfactory returns, or simply because it doesn't pay. Furthermore, the Public Health Service, the Bureau of War Risk Insurance and various private industries are giving employment to more physicians than ever before; also the tendency to specialize is growing each year; there-

fore, instead of a temporary want of general practitioners, it would seem that the need is just beginning, for the causes operating to bring about this condition still exist. While it requires eight years to fit a man for general practice and only one or two more to make him a specialist, with a reasonable prospect of doubling his income and making his work less tedious, the courageous and the ambitious will be leaving the ranks of general medicine in continually increasing numbers.

This is not a plea for higher fees for the general practitioner, for that result is inevitable, but to show us that in the future he should not be obliged to resort to diplomacy for a living; that, instead of striving to increase his work, he can conscientiously endeavor to reduce it without jeopardizing his existence; that the time is more favorable than ever before to eliminate non-essentials in medicine, to insist on the importance of removing the cause of the trouble and to collect from the patient for the training and the protection furnished; for the future question for the public is not how they can get medical services cheaper, but how they can get enough educated physicians to do the work.

Small fees and poor pay is the fault of the physician, not the patient. Failure to appreciate the value of his services is more frequent with the physician himself than with the people he treats. A mistaken idea has existed among doctors that a favor was being conferred on a community by allowing it to pay little or nothing for medical services, when, on the contrary, a great injury is being done, for that community will soon be without a physician.

In any widespread attempt to improve health conditions the physician must be conspicuously in the front. His duty demands it and his business interests require it. His association with people in this capacity should prove the necessity of his advice and the economic value of his leadership, for the first lesson which the neophyte learns is to respect those who know more than he in the subject he is about to pursue. It has sometimes seemed as though the physician was a little jealous of what his patient knew, feeling that a little knowledge was dangerous and that his position depended on being vastly superior in medical knowledge to those he treated. The fallacy of this principle is readily seen. The painter is appreciated most by those who paint; the scientist counts as his most ardent admirer the other scientist who knows just a little less than he. Therefore, general education in the affairs of health should place the physician in a position of higher respect, continually increasing as progress is made. His services will be sought earlier

and oftener. He will conserve vigor rather than attend illness. He will prolong the span of health rather than the span of life. In his work he will associate with the unimpaired who desire to remain so, as well as the incurable who are without hope, and his recompense shall be, more pleasant associations, a feeling of added value to his work, and a fee taken from an active and productive force, rather than a source already sapped by misfortune.

It is realized that suggestions to be of value should be concrete, showing definite mistakes or pointing out particular methods of improvement. If this were possible to any great extent, the corrections would doubtless have already been made.

If some way other than education could be worked out which would give the physician credit for what he prevents as well as what he cures, a short cut to results would be secured. But short cuts to big things are not frequent. People must be impressed with the fact that eternal vigilance is the price of health. They must be continually reminded of the importance of early attention to little things and the practical application of what they already know. They must be made to realize that the business of keeping fit yields greater dividends than any other.

Laws and arbitrary rules for the protection of health have not been entirely successful, because, being made by a healthy public. they fail to sufficiently recognize the viewpoint of the sick individual. In dealing with the so-called social diseases some inequalities ought to be adjusted and some system should be evolved whereby the burden of expense shall be borne by those benefited rather than those afflicted. For example, when scarlet fever is discovered in a family that family is quarantined and all its earning capacity stopped for the protection of the community. That community, which probably gave the disease to the individual, now demands protection at his expense. If such protection has a value, and if the laws and regulations made by the public are necessary for its protection, why does a healthy public place the burden on a sick family? To get something and pay nothing is difficult as well as dishonest, and when the public learns to apply this fact to our quarantine regulations they will be better enforced.

The physician has been trained through generations to serve the individual and not the community, for his interests and his sympathies are all with the individual. Yet these interests need not be antagonistic, for the policy of public health legislation should be broad enough to protect the individual, who is in no way to blame for his misfortune.

What should the general practitioner do to assist his community?

He should accept his responsibility as leader in all matters affecting the physical condition of his people.

He should seek to educate his patients in the right way of living, going back to the original cause of every illness and explaining to them the reason of their trouble and the way to avoid it.

He should endeavor to build up in his patients a feeling of self-reliance and optimism, teaching them how simple and clear are the fundamental principles of health.

He should emphasize the value of human energy, the source of all happiness, all wealth and all hope, the conservation of which as a reserve is the chief factor in fighting disease and has a value as definite as money saved.

He should urge all his patients to present themselves at least once a year for a thorough physical examination and make a careful record of their condition, explaining to them that to treat them properly in sickness he should know their condition in health, and, if necessary, those complying with this rule should be given precedence to his attendance when sick.

He should frequently recollect that to successfully avoid an operation is a greater achievement than to successfully perform one.

He should use less drugs, holding to those whose effect he has learned by experience and avoiding the highly advertised preparations of great promise but unknown virtue. The physician who tries every new drug in order to be up-to-date is influenced by the same feeling which sends his patients to the osteopath, the chiropractor and the Christian scientist. Drugs should be given to produce a certain effect, and the amount required can only be determined by the result obtained. If, occasionally, he finds it necessary to prescribe medicine for its moral effect, as a sort of mental pacifier, he must be careful lest the physician be pacified as well as the patient.

Greater care and more thorough examination should be his watchword.

He should know more about the early symptoms of tuberculosis and the late manifestations of syphilis. He should know the percentage of the various diseases beginning in each decade of life and so be able to advise his patients at the time of greatest danger.

He should know how much health work is being done in the public schools and how much attention is being given to the examination of school children.

He should know how the churches, lodge rooms, picture halls and other places of assembly are swept and ventilated.

In fact, he should know all things affecting in a general way the health of the community in which he lives. His knowledge of the importance of these things gives him responsibility which he cannot evade.

How many organizations are there in your community whose object is to prepare the coming generation mentally? How many societies have you whose purpose it is to protect the moral and spiritual welfare of your children? The time and money spent in these matters would seem a fair indication of the value placed on them by the people. Also have you any societies or organizations to promote medical intelligence and physical health? When the relative importance of these things becomes clearly established in the public mind, can we, as physicians, regard with satisfaction the part we have played?

The lawyer has discovered that long legal contests are unsatisfactory and leave little to divide, but that a reputation of value can be established by keeping people out of trouble. The minister who once reckoned his success by the number of those converted and their past crimes now directs your attention to the moral and spiritual standard of his parishioners. So, also, will the general practitioner sometime cease to mention the number and the severity of the diseases he treats, but will point with pride to the medical intelligence and energetic resistance of those he serves.

*THE DOCTOR AND PREVENTIVE MEDICINE.

By A. L. SMITH, M. D., Machias, Me.

"The greatest asset of a nation is the health of its people." said Dr. Wm. J Mayo at the opening of the Cleveland Clinic. He called attention to the great change that has taken place in the practice of medicine in the last generation. Formerly the doctor made his own diagnosis, carried out his own treatment, and did or directed what was done along the line of prevention. It was the era of competitive medicine. With the expanse of medical knowledge a division of labor became necessary and we entered the era of group medicine or co-operative medicine. Looking forward, he said: "The striking feature of medicine in the immediate future will be the development of medical co-operation in which the state, the community and the doctor must play a part."

It is evident that the day of the lone hand in the practice of medicine is over. It is impossible for any one man to-day to have either the knowledge or the equipment necessary for the purposes of diagnosis or treatment. As great progress has been made in diagnosis and treatment so progress has been made in prevention, in fact, we are entering to-day an era of preventive medicine.

One disadvantage of group medicine is that the cost of different diagnostic procedures by different men is such that it becomes a burden to a great many people. Here the state comes into this cooperative group and helps the doctor and the patient by making blood, chemical, bacteriological and other tests free of cost. Last year the state did at prevailing rates \$98,000 worth of laboratory work free to patients and physicians, or over \$20,000 more than the entire cost of the State Department of Health.

Increasingly the medical profession and the more enlightened people are coming to feel that greater emphasis should be given to the prevention of disease. It is well known that a large amount of sickness and many untimely deaths can be prevented. Each sick individual is a liability to the community. There is the loss of time of the patient, of the caretakers, and, if death takes place, the loss of a worker, not to speak of the anxiety, the sorrow and the suffering.

The spectacular results of prevention in yellow fever, malaria, plague, typhus and other diseases far away have dazzled us somewhat so that we do not notice the more commonplace things at

*Read before the annual session of the Maine Medical Association, June 28, 1921.

home that are exacting their toll of health, of efficiency and life. It is to two or three of these commonplace things that I want to call your attention.

Just as we become so familiar with the delapidated places in our own community that we do not notice them or we accept them as necessary part of the landscape, so with disease-producing conditions. Instead of talking of the wonderful work being done in the South in yellow fever and hookworm, would it not be well for us to tell the people about the things that can be done at home to make Maine a safer, healthier, happier and more efficient state? The practicing physician has been in the past, and must continue to be in the future, the leader and teacher of the people in these matters if he lives up to the traditions of the profession.

I wish to consider first the matter of communicable diseases. Radiating from the United States Public Health Service there is a demand for a nation-wide effort and co-operation in combatting communicable diseases. To the glory of the medical profession it may be said that it has tried to reduce sickness and has been particularly active in the severer forms of communicable diseases. Formerly practitioners did what was done and did it without remuneration. To-day, in this copartnership of which we speak, the state offers assistance to the doctor in his diagnosis through free laboratory tests, relieves him of the annoyance of quarantine and asks the prompt reporting of all communicable diseases and his co-operation in instructing the afflicted families. Not much can be done in the suppression of these diseases without early diagnosis and prompt isolation, with particular emphasis on the first cases. An epidemic disease resembles in many ways a fire, and a fire can be more readily put out when it starts and is only a small fire; otherwise it continues to burn till the fuel is consumed. Ouarantine cannot be established by the health officers until they are aware of the disease and this knowledge must come from the family doctor. The people are being taught as rapidly as possible that it is their legal as as well as their moral duty to report communicable diseases promptly, but this reporting of the householder does not abrogate the duty of the doctor. The doctor, health officials and the people must cooperate to get results.

In the year ending Dec. 31, 1920, there were 381 towns in the state from which there came to the state department no reports of communicable diseases. These towns have a population in round numbers of 250,000. One hundred and nineteen towns have not reported a case for two years. We know there must have been such

diseases in a majority of those communities. The conclusion is evident that there has been neglect of duty and violation of law. In some cases the doctors have undoubtedly reported and the boards of health have not, but usually health officials will report if the doctors report to them. Some doctors are very prompt, but others are notoriously lax in this respect. Prompt reporting and isolation being one of the necessities in the control of these conditions, are these doctors doing their moral and legal duty by their people? Is our time-honored boast of unselfishly protecting our people true in this respect?

The United States Public Health Service asks all the states to do everything within their power to control measles and whooping cough, pointing out the number of deaths from these diseases, and what is perhaps worse, the enormous number of defects following them that are handicaps for life. These diseases are probably the hardest that we have to control for reasons that you all know, so much so that many physicians feel that all efforts in that direction are useless. I believe that the poor results are due somewhat to the attitude of the people, yet their attitude reflects that of the profession, just as a few years ago the idea that excessive flow was a natural accompaniment of the menopause was largely due to the teaching of the family doctor. Now that we have a different idea the public is rapidly getting it also. We should all have that part of our conscience that relates to communicable disease furbished up a little. I have known people who were otherwise perfectly honorable to take a child who had whooping cough on the train. Now somewhere in the long train of infection that follows that act someone's child is going to have pneumonia and die, someone's child will have sequellæ that will handicap it for life. This is an actual crime and should be looked upon as such. I fear that many of our consciences are not so acute as they should be in regard to this matter. The greatest danger is to children under five years of age, therefore the longer we can protect them the greater the safety, and as long as there is a single child in the community that has not been infected, that child is entitled to all the protection that we can give it. If we were as active at the first appearance of the first case of whooping cough as we are with the first case of diphtheria, something would be accomplished.

There is an inclination with most of us to be too lenient in these matters with our patients. We dislike to put them to the inconvenience that is really necessary to stop a communicable disease at the start, when perhaps the case is only suspicious. If we would hew to the line in the first cases we would be less likely to inconvenience a large number of people later on. I want to urge the necessity of prompt reporting of all communicable diseases and the hearty co-operation of doctors, health officials and people for their suppression, including venereal disorders. When the law in regard to the latter first came into effect, many of the profession were frankly antagonistic, but now there is a considerable change in feeling. Clearer thinking on a higher plane has brought home the fact that an individual has no right to pass on to others, to his children, or to come nearer home, to our children, diseases that cause so much suffering, surgery and mental misery. We who have gray hairs and daughters to marry are wondering if their portion is to be pus tubes and the operating table.

This matter of more energetic work in communicable diseases is being pushed all over the United States. Michigan has a law that the manner of their spread and ways of control shall be included in the textbooks on physiology and taught in all the public schools.

While on the subject of communicable diseases I wish to say a word in regard to smallpox and vaccination. As a race we have practically no natural immunity against smallpox. Before the days of Jenner and vaccination it was as common as measles. Everyone was expected to have it before he grew up. It was estimated that 60,000,000 people died of it in the 18th century. It was accepted as a melancholy and unavoidable fact that one-fourth of the whole human race must either die from it, be crippled or disfigured for life. It was the great scourge of the world. The death toll of England and France was about 50,000 yearly. Germany, from having about the same number, reduced the mortality to nothing after a few years' compulsory vaccination of children, beginning in 1874. Cuba and the Philippines were hotbeds of smallpox, with thousands of deaths annually, until the American occupation. Systematic vaccination did away with it.

Smallpox is one of the very few diseases that we have a definite, practical preventive for. Vaccination is one of the greatest boons to mankind, yet through ignorance of the real facts on the part of the people it seems in danger of becoming of no avail.

Another very commonplace subject is that of milk. Rosenau, of Harvard, states that more sickness and death result from milk than any other food. When we consider the large number of babies that subsist almost wholly upon cow's milk we realize how essential it is that this important food supply be properly safeguarded. Milk and milk products, in the form of cheese, butter and ice cream, are

in general use. When milk is once contaminated with bacteria, they grow in it with remarkable rapidity. Many of our communicable diseases are transmitted by it. I am not going to attempt any instruction in regard to milk; you know all about it. The remarkable thing is, that with all the facts well known, this common food of the people has no adequate protection except in the larger cities and a few towns. Maine being largely rural, means that a large part of our people are drinking an unprotected milk supply.

The law requires that towns and cities of 3,000 or more inhabitants shall appoint milk inspectors. I think that part of the law is usually complied with, but that is all that happens except as I have noted. The milk inspector does not functionate. Most towns under 3,000 make no attempt to control their supply, and from what I have seen and what I can learn, much of it is positively dangerous. The good, pure milk of the country is largely a delusion and a snare. Comparatively few of the cows are tested for tuberculosis, the stables are filthy, the milkers are careless and some of the housewives are not neat. Now what have we at present to correct this condition? The milk supply of the state is under the control of the Department of Agriculture, and I have no doubt that the department does all that it can, but it has at its disposal only one man as milk and dairy inspector for this whole great state. Of course he can hardly touch the job. It is possible that in time there will be combinations of all the towns, with full-time health officers to take care of this, but that looks to be many years away.

I believe that if the state were divided into not less than four sections, with a laboratory in each section properly equipped for chemical and bacteriological examination, with, let us say, two trained dairy and milk inspectors, it would go far toward making a safer supply. Even then examinations would not be made as frequently as they should, but the instruction given, and the mere fact that at any time they were likely to inspect the dairyman and milkman, take a sample of milk for examination, would have a wholesome effect. I believe this work could be more economically done if placed under the Department of Health, as it is in Massachusetts, and these laboratories could do the same work for its section as is now done at the State Department at Augusta and give physicians a much quicker and better service than they are now getting, owing to the great distances. A great disadvantage of the present system is the length of time that it takes for physicians in many sections of the state to get a report from their specimens. Four laboratories, properly located, could give the doctors quick and efficient service,

safeguard the milk supply of the small cities and towns of the whole state not now provided for, and the expense would be small compared with the expense that the state is now incurring in the protection of its automobiles.

Bovine tuberculosis in man is a question that has been much discussed, but investigators are now pretty well agreed that onethird of all the tuberculosis in children under five years of age is of the bovine type, usually contracted by drinking milk. It affects chiefly the bones, lymph glands and meninges. If I may be pardoned a personal reference, years ago I had a little girl die of tubercular meningitis. No contact could be traced to a case of the disease in any form. She was under the school age. She had been drinking milk from a perfectly healthy-looking cow. The cow was tested, reacted, was killed and a post-mortem proved her tuberculous. I know that this does not prove it, but I firmly believe that neglect to test that cow cost the life of my daughter. There are undoubtedly many children in the state suffering and dying from this disease by that same kind of neglect. In the present state of our knowledge it seems folly to grant a man a license to sell milk, when, so far as we know, any number of his cows may be tuberculous.

There seems to be no excuse for drinking this kind of milk, as an arrangement has been made by the state and federal governments whereby anyone may have their cows tested free of cost; if the animal is diseased, the owner is paid a fair price for his loss. There is a Farm Bureau agent in every county and arrangement for the testing is made through him. The agents that I have met are very glad to assist in having this work done.

I have faith to believe that if the doctors who live in communities where cows are kept, or who attend those communities, should say on occasion to the farmers that their cows should be tested that it would be done, and furthermore, if each physician in the smaller cities and towns should inquire into his own milk supply and insist that the milk furnished to his family be from tested cows, it would have a wholesome and far-reaching educational effect.

It falls to the family physician to be the teacher and leader in matters pertaining to the health of his people and his community. This is a part of the moral obligation which every physician assumes when he chooses his profession. By his very training and knowledge there comes a responsibility as to health and life. Looking back over my own quarter of a century of practice I wonder if physicians are as interested and active in this phase of their work as they should be.

Dr. Mayo, in the article previously quoted, says that collectively physicians have but little influence. I confess that my ideas did not coincide with this statement, but when I consider the influence possessed by other kinds of practitioners with our legislators, I am inclined to think that he is right. If this be true, perhaps one reason is that we as a profession are not sufficiently interested in the people collectively. "The medical profession can be the greatest factor for good." If we are willing to give a little of our time to teach, if we show ourselves to be really interested in the welfare of our people, we can have a big influence.

With many years spent in a general practice I can thoroughly appreciate the standpoint of the doctor. He is busy; he is troubled by doubts of diagnosis and worried by patients who are also friends; some are not doing well; he has night work and maternity cases. The filling out report cards of communicable diseases looks like a secondary matter compared with what appears to him to be real troubles. He is even likely to neglect to look into the milk supply of his own family, not to mention the talking up water supply and sanitation of his people. A year's connection with the State Department of Health has forced upon me the other side, the preventive side. I can appreciate the earnest desire of the health departments to decrease the amount of sickness. That looks to them to be the big thing. They can see how it can actually be accomplished. They must have the aid of the general practitioner, they feel that they ought to have it, but the discouraging part of it is that so many seem indifferent. I am glad to say, however, that the majority are not. In communicable diseases one or two careless doctors in a community can defeat the efforts of all the others. I trust in a short time, when the work is better understood, that there will be the heartiest co-operation by all in both lines of work.

If we wish to be of real service, if we wish to restore the profession to its old-time position in the hearts of the people, we must place it upon a higher plane than a financial one. General practitioners and workers in preventive medicine must, by their hearty co-operation and willingness to teach, show their real interest in the public welfare.

DISCUSSION.

THE PRESIDENT: Dr. Addison S. Thayer, of Portland, will open the discussion.

DR. THAYER: Mr. President, I quite agree with you that we are indebted to our committee. It seems to me that this is an important moment in the work of our society. For a number of years now we have had no opportunity whatever to talk back. We have had fine mental pabulum furnished to us by our officers, and we have in passive enjoyment taken it in, but some of us think that in the meetings the very best part of it all is the discussion. I am grateful for the opportunity to start the ball rolling this morning, and I want to ask you, Mr. President, if there is anything that has been said this morning, except the prayer, that we are not privileged to discuss?

THE PRESIDENT: The sky is the limit.

DR. THAYER: Now the Mayor of Bangor told us that we are not sufficiently organized. We heard from the Secretary of the American Medical Association after that, and I do not know whether we are going to hear from the President later on or not. I judge not from what the papers said, but, at any rate, I have heard comments made for a number of years that we are too much organized in one way, that the American Medical Association has held the leash over us, and that the old-fashioned program of Maine-made papers, followed by free discussions, that used to be in order has been supplanted by this excellent pabulum that I have just alluded to, and we have all had to keep quiet. Now when it comes to this matter of organization, I think that one thing the Mayor of Bangor said this morning might set us thinking a little. He said that it would not be true, perhaps, that medical education ceased to exist in Maine last week if we had had more organization. It happens to be true that organization on the part of the people in Chicago has had a tendency to destroy medical education in Maine—at least it has helped, many say. That is one thing to think of.

The other three papers had to do mostly with preventive medicine, and, as Dr. Smith, of Machias, said, the two papers beside his really had that for their motif, so to speak. That brings a lot home to us that we are bound to think about. We are told that we are going to lose our job because there won't be any doctors except those who are hired by the state to do preventive medicine, and yet Dr. Smith, of Machias, has made it very plain to us what preventive medicine has accomplished in the one matter of smallpox. I suppose

that probably there is no one in this room to-day who is an anti-vaccinationist, but let us not think for a minute that there are not very active anti-vaccinationists and very potent opponents of what Dr. Smith has demonstrated to us so clearly has transformed the mortality from smallpox in the world to what it is to-day; that there are men who will publicly oppose what we know to be for the interests of the public, and intelligent men, too. And so it is, not only with medical education, not only with preventive medicine in such vital matters as smallpox—to take that one illustration—but in whatever we try to do all along the line we are going to find men who cannot see the sun of noonday. We have got to fight them, and the papers this morning, I think, have been very suggestive as to ways in which we can conduct that fight. The admonitions that we have had may perhaps lead us up to the ideal conception of what a physician ought to be, as made so clear by Dr. Stewart in his paper. [Applause.]

THE PRESIDENT: The discussion of these papers will be continued by Dr. A. K. P. Smith, of Bangor.

DR. SMITH: Mr. President and Members of the Association: I think that we are all to be congratulated in having presented to us such wonderful papers as we have heard to-day. These papers are very interesting to us all because they have to do with the general practitioner, and when all is said and done, it is the general practitioner that is the standard and the bulwark of the whole medical profession.

I feel that the general practitioner, on the whole, is too modest a man. He does not realize just what a power he really is in the community. If he will stop to think of it, he will find that his clientale, his patients, his families, come to him on almost all occasions for advice. They depend upon him, not only in medical matters, but also in the social activities of the town. I am speaking now of the smaller towns, as distinguished, perhaps, from the larger cities. He then only has to exercise his skill and his judgment to form public opinion, and he can usually get anything that he goes after, and it is only up to him to go after it.

As to the individual papers that have been presented this morning, neither Dr. Thayer nor I had the opportunity of seeing them beforehand, and whatever we have to say is of necessity entirely extemporaneous, and I must confess that I got so deeply interested in listening to all the papers that I did not look up any points that I might criticise. In fact, I do not think there is very much criticism to be made of these papers. They were a wonderfully well prepared group of papers, as we would expect from such men as presented

them—good Maine men, capable of doing all those things. Maine always gets there when she starts.

Preventive medicine seems to be the topic of the day and it should be so. The most of us are not very much addicted to giving drugs with the expectation of curing diseases. If we give medicines, I think we do it pretty largely for the psychological effect, because we want the patient to think that he is taking something; but the laity are getting quite well educated along those lines and do not expect quite as many drugs as they formerly expected, so we should be a little careful not to overdo that. I thank you, Mr. President. [Applause.]

THE PRESIDENT: These papers are open for general discussion, and those who take part in the discussion will announce their names on rising, so that the stenographer may get them.

DR. GILBERT, of Ashland: Mr. President, I have been very much interested in these papers. I want to say a word in regard to the papers of Dr. Marston and Dr. Stewart.

Speaking of the examination of school children, during the past three or four months I have been gathering some figures regarding school children of Maine, and it seems to me that it is a part of our duty to get after those children if we are to follow out the principles of preventive medicine. When we consider that there are about 22,000,000 school children in the United States, and that it is estimated that from 20 to 40 per cent. are graduated with defects seriously hampering them as men and women, we can see that we must get hold of the children. Some 20 per cent., about 5,000,000, of our children are considerably under weight, and among these, between the ages of eighteen and twenty-five, we find many of our cases of tuberculosis are developing. I have figures from twenty-three of the cities and · towns of Maine, including Portland and Bangor. Speaking of vaccination as Dr. Smith did, of those 23,000 children there are only 4,000 of them who have been vaccinated, and of the towns that have sent back the questionnaires to me, fourteen failed to report anything in regard to it. When we consider that smallpox in the United States for the last five years has more than doubled, that in the State of California the increase is from some over 100 cases to 5,000, and Pennsylvania has increased about 120 per cent., it seems to be our duty to talk vaccination more.

DR. O'BRIEN, of Bangor: Mr. President, in regard to this question of mulnutrition among the children, I think it would be well to call attention to the fact that many have a wrong idea on that. Many have the idea that malnutrition is a disease of the poor. Sta-

tistics show that only 5 per cent. of the under-nourished children come from the poor. Also it was spoken about cutting the fees for the needy poor. Our public health work, in which I am active, I think is abused to a certain extent. If you are going to run your clinics, and free clinics, they should be run in connection with a social service worker. We do not get the needy poor at the clinics and the doctor is very often responsible. I have many cases come to me in my line of work who say that Doctor So-and-So told them that if they would come to the clinic they would get an examination for nothing. I think social service workers should be used in connection with every clinic. As our clinics are run now, they are run to quantity rather than quality. I think a thorough examination of perhaps a dozen cases in the morning is much more profitable to the community than to have 80 or 90 run in to be weighed and casually looked over.

DR. MILLIKEN, of Readfield: Mr. President, I would like to ask Dr. Smith, of Machias, a few questions. One is, what is the procedure necessary to go through in order to have cows tested free by the State Department of Health. Second, what is the correct thing to do in this case: A man comes into the office with a sore mouth, canker sore, throat a little sore. He gives a history of sometime—we will say two or three weeks—taking a chew of tobacco off of a man's plug of tobacco. He is advised to have a Wassermann. He says he will come back next week and take it. Maybe he comes back and maybe he does not. Maybe that man has syphilis and maybe he hasn't. What is the correct thing to do with it?

THE PRESIDENT: Those questions will be answered when the discussion is closed.

DR. COOMBS: Mr. President, the papers this morning had to do with prevention. My branch of the State Department of Health has to do with a most important section of preventive work. We find that the thing that is affecting the State of Maine economically and physically more than anything else is the failure of the doctor to insist that the patients shall continue treatment for gonorrhea until cured, and we ask, and the United States Public Health Service asks, that before permitting a patient to have the assurance that he is positively cured of gonorrhea, that that patient shall have the privilege of the examination of smears by the state laboratory under the three different conditions: First, twenty-four hours after the passage of a sound, in order that the pressure of the sound may cause irritation and may by pressure force the gonococci into the urethral canal; second, after massage of prostate, and third, after massage of the seminal vessels and examination of secretions, and that they shall not be satisfied with any one negative any more than they would with relation to a person suffering from diphtheria. On behalf of the girl who is to be married, we urge the doctors of Maine to apply this test to every case of gonorrhea in the male.

With relation to syphilis, the thing which appears to point to the greatest danger to the people of the state now is that the doctor and the patient will be satisfied with the healing of the primary sores after one intravenus treatment or one series of intravenous treatments, and allow the patient to feel that he is safe. The public health service men have developed the proposition that three series of treatments should be given and that a watch be kept afterwards, not particularly with relation to the Wassermann, but with relation to the development of the secondary sores in the mucous path.

The few centuries that Maine and the United States have passed through have now developed the point that the feeble-minded are increasing in numbers year after year. The spreader of venereal diseases is the male; the purveyor of them is the female. The dangerous purveyor is the feeble-minded prostitute, the girl who is a little bit easy. If Maine is to be saved the expense of building year after year more dormitories for the insane hospitals and increasing the capacity of the Home for the Feeble-Minded, we must take adequate measures for taking care of the female prostitute who is feebleminded, and who is giving to the State of Maine each year a baby, the most of them state or town paupers, to take care of. The local doctor can do no better work for the town and state than to develop in the minds of the community the idea that this girl who is a little bit easy, who does not know enough to protect herself, can be taken in charge by the state and put in an institution where she will not only be free from the danger of contagion, but the state will be relieved of the burden of having other feeble-minded children to take care of. [Applause.]

DR. Hunt: Mr. President, we are getting quite a ways off from the discussion of these papers, and maybe we had better get back and venture out upon the sea of debate. The first paper, which in some respects was admirable, by Dr. Smith, of Machias, made no mention of how to remedy this condition of having the tuberculosis germ in milk. I suppose that everyone knows that milk is probably the filthiest fluid that human beings use, unless we go to the polar regions, and that all the cattle in Maine, and probably all the human beings in Maine, at one time and another have had the tuberculosis germ in them. I guess there is no question about that. A good many years ago I saw an account of some 494 post mortens of per-

sons who died from other disorders than tuberculosis, but in every one of those 494 cases there were found tuberculosis germs. What does that mean? Four or five per cent. of all the cattle in Maine have the tuberculosis germs. Now you cannot always find the tuberculosis germ by the ordinary examination that is made, even though they are present. All the milk that we drink is just as full of germs as it can be. There is no question about that; everybody acknowledges it in all the cities in the country. What is the remedy for that? If you should go into one of these farming communities and see them milk the cows, you would see great lumps of fecal matter adhering to the teats and long hairs adhering to the udder. You talk about shaving the woman! Why not shave the cow before you milk her? Now there is just one remedy for all this and that is to sterilize the milk—a plain, simple remedy we think. Cooked milk is ever so much more digestible than raw milk. You would not think of eating raw meat. Take a child with diarrhea, and the milk should be scalded and given to the patient. Scalding the milk makes it more digestible and the child gets over the diarrhea. If milk is heated to about the temperature that you can stick your finger in without pain and keep it there a minute or two, tuberculosis germs will disappear and nearly all the other germs. The problem is just as simple as two and two make four, and it is of great help to the public. The children do not get the tuberculosis germs, or if they do get them, they are dead. That would naturally lead one to a discussion of why children have diarrhea, and that would lead us outside of this paper.

DR. SYLVESTER: Mr. President, you might get the idea from the last speaker that the process of sterilization got rid of all the filthy material in milk when you really get a stronger solution. I was interested in the discussion of the previous speaker, the care of milk for children, and there is one thing else that I think should be commented upon, and that is that while we might get rid of the danger from the bovine bacillus, vet in childhood lies about all the danger there is from tuberculosis. If we could bear this in mind, we might be able to get rid of some of the hysterical alarm that is so prevalent among adults and which is cultivated by the newspapers and for which they are somewhat to blame. If the people can be made to understand that the danger of infection is almost altogether in childhood, that would help us. If in the dirty age of the child, when he is crawling around, putting his dirty and wet hands constantly in his mouth, he can be kept from association with tuberculous patients and tuberculous conditions, it will help very largely.

The description of the country practitioner and general practitioner appealed to me from having practiced in that way for over a quarter of a century. A few years ago, in cleaning out my office, I came to case book after case book which I would try to start in an effort to keep case histories. I would write up two or three and stop. With the tremendous pressure of business which the general practitioner is under, how can he know the history, the diagnosis, the clinical signs, the physical signs of every person within a dozen miles? The astonishing thing to me is that there are so many practitioners in Maine who get away with it. Overwhelmed by the failure to remember these things, I would try to keep case histories, be swamped and stop. The next year I would try it again, and so on, and as I cleaned out my office I thought it was rather a pitiful commentary on the ability of the country practitioner to do all that he had to do when I saw my unfinished case records, my attempt to do what I felt should be done and my inability to do it. [Applause.]

THE PRESIDENT: If there is no further discussion, I will call on Dr. Hopkins.

DR. HOPKINS: Mr. President, there are but one or two things that I will speak of. One is the importance of the physician assisting the people of his community in preventive medicine. I think I can best illustrate this by an incident that occurred in my home town, where some of the people got ardently interested in health work and tried to do all of it themselves without any counsel from the physicians. One of the women sent word to the schoolteachers that she wished her children to be sent home when they wanted to go to the closet, that she understood that some of the parents of some of the children had had venereal disease. We have so many things to contend with, it is a long, uphill process. We have some of our hardest fights with so-called intelligent people. Are they intelligent? That is the question. They are often educated along certain lines, but do not broaden out, do not progress, do not grasp the work that the medical profession is trying to do for them. But we will have to be persistent. I think one of the best things is the illustrated lecture, illustrated talk that our State Department has, and which is available to any community that will avail itself of the privilege. If the people can see pictures of things, if they can see the effects set out before their eyes, they will understand and believe better than in any other way. It is just the same as when we studied medicine. If we could see pictures of things, we could comprehend and retain it in half the time that we could by simply studying a page in a book.

THE PRESIDENT: Dr. Stewart?

DR. STEWART: I have nothing further to say, Mr. President.

THE PRESIDENT: We will now take a recess and reassemble at

two o'clock sharp.

Adjourned.

County News and Notes.

YORK.

YORK COUNTY MEDICAL SOCIETY.

The regular quarterly meeting was held at the Town Hall, Sanford, Thursday, October 6th.

In the absence of the President and Vice-President, Dr. Charles W. Blagden, of Sanford, was elected chairman.

At the business session, which was opened at 11.30, only routine business was transacted.

Dinner was enjoyed at Hotel Sanford, following which the afternoon session was opened at 2.00 o'clock.

The first paper was read by Carl G. Dennett, M. D., Saco. His subject, "Focal Infections," was presented in a manner that was both interesting and practical. The second paper was given by Thomas A. Foster, M. D., Portland, whose experience with the class of cases designated "The Effort Syndrome," or "Neurocardiac Asthenias," has been intimate and valuable. These papers elicited considerable discussion and emphasized several important points. A vote of thanks was given the essayists.

Dr. D. E. Dolloff, Biddeford, reported a case of lead poisoning. Adjourned at 4.00 P. M.

There were present the following physicians: T. A. Foster, Portland; C. W. Blagden, O. B. Head, S. A. Cobb, H. D. Ross, Sanford; A. S. Davis, Springvale; F. W. Smith, York Harbor; E. C. Cook, York Village; H. L. Prescott, Kennebunkport; C. W. Kinghorn, Kittery; C. F. Kendall, D. E. Dolloff, Biddeford; J. D. Cochrane, R. L. Maybury, C. G. Dennett, Saco; J. A. Randall, A. L. Jones, Old Orchard.

ARTHUR L. JONES, Secretary.

Notice.

SECTION OF OPHTHALMOLOGY AND OTO-LARYN-GOLOGY OF THE MAINE MEDICAL ASSO.

The first meeting was held at the Mansion House, Poland Springs, Oct. 4, 1921.

The meeting was called to order at 4.30 P. M. by Chairman Gilbert. The minutes of the last meeting were read and approved. The Constitution and By-Laws were amended to provide for a chairman-elect instead of vice chairman, and Dr. Holt, Jr., was elected to fill the new office.

The business session was followed by a Symposium of Glaucoma. Diagnosis, Dr. Alfred Haskell, Portland; Medical

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Leading physicians now realize that physiotherapy can be of great assistance to them in their general practice. It has shown its value particularly in a large number of chronic conditions, and also in the treatment of occupational injuries received by mill workers and artisations of various kinds.

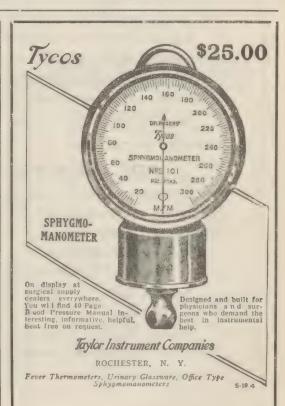
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Treatment, Dr. W. E. Kershuer, Bath; Surgical Treatment, Dr. E. E. Holt, Jr., Portland.

The essayists introduced this very important subject in a brief, interesting and comprehensive manner, and the discussion proved of value to those present.

Dr. Spalding introduced some measures which were duly referred to standing committees.

The meeting adjourned until 7.30, and the members enjoyed one of those delightful dinners for which the Mansion House is famed.

At 7.30 the meeting was again called to order and the following program completed: "Acute Frontal Sinusitis," with a report of a case of epidurel; "Abscess from an Acute Frontal Sinusitis," by Dr. T. J. Hill, Waterville (discussion opened by Dr. S. E. Fisher); "Advances in the Treatment of Nasal Accessory Sinus Diseases During the Last Twenty-five Years," by Dr. Owen Smith, Portland; "Information Regarding Work to Be Done by the State Committee on Conservation of Vision," by Dr. S. J. Beach.

A general discussion followed these two very intersting papers, which opened up the field of the nasal accessory sinus.

Dr. Beach gave a brief outline of the work done by the State Committee on the Conservation of Vision.

Voted to hold the next meeting at Waterville. Adjourned.

NEW AND NON-OFFICIAL REMEDIES.

During September the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

The Abbott Laboratories:

Procaine-Adrenalin Hypodermic Tablets, No. 2.

Dry Milk Co.:

Protolac.

Hynson, Westcott & Dunning:

Tablets of Benzyl Succinate-H., W. & D.

Intra Products Co.:

Ampules Ven Sterile Solution Mercury Oxycyanide, 0.008 gm.

Ampules Ven Sterile Solution Mercury Oxycyanide, 0.016 gm.

Lederle Antitoxin Laboratories:

Acne Combined Vaccine.

Mead Johnson & Co.:

Casec.

N. Y. Intravenous Laboratory:

Loeser's Intravenous Solution of Mercury Oxycyanide.

Seydel Mfg. Co.:

Benzyl Succinate—Seydel.

Non-proprietary Articles:

Benzyl Succinate.

Calcium Caseinate.

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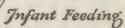
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OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association.

All papers, case reports, etc., should be typewritten when possible.

Proof-sheets will be sent to the author when requested.

Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

VOL. XII.

NOVEMBER, 1921.

No. 4

*OBSTETRIC PROBLEMS FROM THE STANDPOINT OF THE GENERAL PRACTITIONER.

By FRED W. MANN, M. D., Houlton, Me.

General practice has its problems—not the least of these is obstetrics. The prevalent impression that childbirth is a natural process, and that less skill and care are requisite for the lying-in woman than for the average medical or surgical case, has led to deplorable results. De Lee tells us that 7 per cent. of female deaths in America between the ages of 20 and 40 are due to puerperal infection and that 25,000 women die yearly from causes attributable to childbearing. Without a doubt the major portion of all surgery is done on the female section of the community, and two causes for this condition stand out pre-eminently. First, venereal disease, and second, faulty obstetrics. If 25,000 deaths yearly are due to puerperal sepsis, beyond a shadow of doubt the vast majority of these lives might be saved by improved technic and the other great army who have survived the misfortune of a mild infection would be saved the agony and discomfort of a semi-invalid existence.

Our first concern is, therefore, the ordinary lying-in case. The majority of these patients make perfect recoveries, yet we all have seen cases where at confinement there was positively nothing wrong, and yet the third or fourth day found them with slight headache, muscular soreness, a quickened pulse and a temperature from 99½ to

^{*} Read before the annual session of the Maine Medical Association, June 28, 1921.

101°. These cases have apparently given us very little concern, and they generally do recover so that the woman gets around. She, however, is seldom well and complains of backache, a bearing-down sensation, a sense of pelvic discomfort, with no end of nervous symptoms. Catalogue a case of this kind, as we generally do, among our successful ones, yet we nevertheless have had an infected woman, and our patient sooner or later finds her way to the operating table for either curettage or laparotomy. The cases which do not fall into the surgeon's hands are generally sterile, much to their satisfaction, though sometimes to their discomfiture, while those who are operated on are almost invariably rendered so. In either event, a myriad of symptoms and an endless amount of suffering ensue, all of which might be avoided by improved technic and scrupulous care and cleanliness.

A careful survey of the obstetric field would show cases such as these to have been delivered in their own homes, with some tender mother or good-intentioned relative left to care for them during the lying-in period. Trust your medical cases to such promiscuous care, or your surgical patients to the tender mercies of 'the next of kin,' or even to the bumptious blundering of the so-called 'experienced nurse,' and positively no such dire disaster will befall the sufferer as will ensue in the realm of obstetrics.

When engaged to attend an obstetric case the first question propounded to the woman should invariably be, "Who is going to care for you during your lying-in period?" Spend some time—and it is time well spent—in persuading her to employ the most proficient trained nurse available, or if for any reason this cannot be done, insist that she go for her confinement to the local hospital.

I have had considerable experience with obstetric work in both our local hospitals during the past half-dozen years, and I do not recall a single case that has given me a moment's anxiety. The keynote to successful midwifery is cleanliness, and our first consideration should be to get the patient where, and with whom, such asepsis may be carried out. It can best be done at the hospital, and the next best place is home under the care of a competent trained nurse.

When engaged to attend a woman, if she be a multipara a history of her former confinements should be had and just what difficulties she encountered, and if any doubt is entertained pelvic measurements should be made. In the case of the primipara these measurements should always be made, and the position and presentation of the child, as well as its relative size, ascertained. The end of the

first stage of labor should have no surprises for us so far as position and presentation are concerned, and by palpation also the size of the head, and whether or not it will engage in the pelvis, can be learned. This knowledge should not be postponed until labor has commenced.

When summoned to a case of labor, if possible, even when a nurse is in attendance, take a nurse with you, and in case of those patients unfortunate enough to be without skilled help forget your obstetric forceps, or even your whole obstetric outfit, but do not deprive your patient of trained help during her labor. In no other capacity does a nurse show to better advantage than in making the patient clean and keeping her so during her confinement. My first care when called to a woman in labor is to have the nurse thoroughly empty the patient's lower bowel by a high enema, and this precaution I never neglect except where the head is on the perineum. Williams says, "By far the greater number of infected cases become so because of invasion by the colon bacillus," therefore emptying the lower bowel and getting rid of fecal matter being pushed out by the advancing head is a precaution not to be neglected. Having thoroughly washed out the lower bowel, the nurse is next instructed to shave and cleanse the patient as carefully as if a surgical operation was about to be performed. This preparation should include the abdomen and thighs, as well as the external genitals. Unless you have a nurse whom you have personally instructed, supervise this cleansing process yourself, because even good nurses may be found who will scrub the anus and the vulva with the same pad. I had just this experience with an otherwise good nurse a short time ago. With reference to including the abdomen in the field of sterilization, I know of a case where this was neglected and the patient became infected and underwent a six-weeks' ordeal, and I am sure the break in the aseptic chain was by compressing the uterus from above with a wet, gloved hand and having the water from that source trickle into the vulva. Every other step in the technic appeared faultless. When the patient has been carefully cleansed, the external genitals are protected by a sterile pad, which is not removed except for examinations until the head is on the perineum.

A word regarding examinations—they surely have been a curse—I mean examinations by vagina. Many writers now advocate rectal examinations instead, and little wonder, for of all fruitful sources of contamination this is the most prolific. The vagina certainly has its function, but not as a repository for an examining finger. Examinations should be made only with a carefully cleansed hand encased in a positively sterile glove. These should in a multipara, in an

ordinary case, be made never more than once and in a large number not at all, in a primipara not more than two or three times, and even in these cases it can be entirely dispensed with. Accurate information in nearly all of these cases can be obtained regarding position, etc., by abdominal palpation. With an empty bladder and relaxed abdominal walls the descent of the head can be watched from above until it can be felt through the perineum below. The custom of sitting with and examining the patient by inserting the finger in the vagina and dilating during or between pains, and by so doing assuring the woman you are helping her, ought to be by all means condemned. Nature has magnificently provided for dilatation by the bag of water—we cannot improve upon it.

With the head on the perineum, bearing-down efforts by the woman ought to be discouraged, and if chloroform is being given its administration should be quickened. If sufficient time is given for dilatation lacerations may be avoided. I have always at this period kept the secretions carefully wiped away with sterile cotton—swabs wet in lysol solution. With the birth of the child a closely-fitting sterile pad should be applied to the vulva and not removed until forced away by the descent of the placenta. After the completion of the third stage of labor the vulva is wiped with a sterile sponge and a sterile pad again applied. Further washing, if cleanliness has theretofore been observed, is only a menace. From the time the woman is first cleansed by the nurse until labor is completed, nothing unsterile, whether sheet, towel, or pad, is allowed near her, and this scrupulous asepsis must be maintained throughout the lying-in period. With this care regarding cleanliness and abstinence from manipulative interference the ordinary case generally does well.

Next to the usual case the instrumental case presents its difficulties. Here again—and those of you who have watched the results will, I think, agree—the hospitals afford advantages which no private house can equal. Measured by the standard of most authorities, that a temperature of 100° or more on the third day means infection, and taken in connection with headache, backache, muscular soreness and slight chilliness, I believe that it does unquestionably show that these cases are septic. Why a man should insist that a clean appendix case should be operated on in the hospital and not more strenuously demand institutional care for his forceps case is hard to understand. The one requires operative measures lasting only a few minutes; the other, under the most favorable circumstances, many times longer, therefore the most exacting care must be exercised. Nowhere can this be had so well as in the properly managed institu-

tion. In my own practice—and I am convinced that I am not a solitary sinner—I am sure instrumental interference has been altogether too frequent. Nature is a much more proficient obstetrician than the most skillful of us and should have ample opportunity to deliver the woman before we volunteer our help. Forceps should only be used when the condition of either mother or child clearly demands it, and never to conserve the time or suit the convenience of the attendant. It is an exceedingly difficult task in the ordinary home to use instruments and even maintain a semblance of cleanliness. In the vast majority of cases the physician has not been previously engaged and knows nothing of the case until called at the beginning of labor. As no trained nurse has preceded him and done the customary half day's sterilizing, nothing is in readiness, and when the necessity for forceps delivery is forced upon him the kettle and the tin wash boiler are his only available means of satisfying his conscience regarding asepsis. Under conditions like these little wonder that so many women in later years are driven to seek surgical relief, and on the other hand, under such adverse circumstances, that such fair results follow is certainly a compliment to professional care and resourcefulness.

Except where the exigencies of the case positively forbid, forceps should not be used until a consultant has been called who will assume responsibility for the anæsthetic and a trained nurse secured who will act as a sterile assistant. Even in our local hospitals I will not use instruments unless a competent anæthetist is in charge and unless plenty of trained help is available. Before instrumental delivery I am careful to insist on three things:

- 1st. That everything necessary to combat shock is at hand. When the patient is pulseless is no time to prepare hypodermics, to make ready enemas or to mix normal salt solution for subcutaneous use.
- 2nd. That every available means to check hemorrhage is in readiness. Flooding for less than three minutes has been fatal, so be ready to tampion if required.
- 3rd. That everything is in readiness to repair lacerations before the woman is returned to bed.

With these precautions for the safety of the mother and with all necessary means for the resuscitation of the child at hand, one may proceed.

The same general aseptic care should be exercised as if a major surgical operation was about to be performed. The patient herself must be surgically clean, the hands of the physician scrubbed and encased in sterile gloves, and everything under, over or around the patient must be clean beyond question. Before proceeding to apply forceps one must have clearly in mind the condition impeding the delivery and just what he must do to overcome it. There ought not to be a shadow of doubt lurking in his mental chambers of the exact presentation and position of the child and of the mechanism of labor in each instance. I have twice in my experience seen a good physician try to apply forceps to a breech when he thought it was a head, and at least a dozen times have I been present when an occipito-posterior case was dragged through the birth canal without a suspicion of the condition until the head was delivered. These instances are gross carelessness and ought never to occur. When they do they are generally disastrous to the birth canal and often fatal to the child. Why they are not fatal to the mother high heaven only knows.

With the possible exception of transverse or face presentation, both of which are very rare, occipitoposterior cases are the most trying. Fortunately, if left to nature, 90 per cent. of them will rotate to the front and be delivered without over-interference, but the remaining 10 per cent. may well cause us anxiety. Nature, however, will often work wonders. If you are fortunate enough to have your patient in the hospital, where anxious friends cannot open upon you the vial of their wrath, give the woman small doses of morphine and scopolamin subcutaneously, so that between pains she is easy and during pains less nervous. Give, if indicated, minute doses of petuitrin to strengthen contractions, and with the examining finger push the sunciput up allowing the occiput to descend. You will be surprised how often rotation will occur. Of one thing you may be assured, i. e., the fontanelle which is lowest in the birth canal will invariably rotate to the front, therefore if the posterior one is far in advance of the anterior do not disturb the patient, as she will be all right.

In cases where instrumental interference is indicated, pull the head well down on the perineum and lift the forceps well toward the pubes, thereby causing the occiput to descend; remove the instruments and the next few pains will ofttimes cause anterior rotation and complete the delivery. If one could determine beforehand the cases where rotation would not occur, probably the best procedure would be manual rotation, with one hand in the vagina while the external hand pushed the shoulder forward. In this way the danger of the head returning to its former position would be obviated. In posterior cases, when the head had been engaged for hours and no progress made, I have, under deep anæsthesia, applied forceps,

pushed the head upward and rotated the occiput anteriorly by the so-called Scazoni method. With the instruments upside down you can make the head again engage and it will not return to its former position. It requires no great amount of skill to execute this movement, although I have always trembled when I did it.

With the exception of placenta prævia, which is relatively infrequent, the toxemic case is a most formidable problem. If there is anything which will make a man age years in a few hours it is to be responsible for an eclamptic case, say in a farmhouse a few miles from town. There is a helplessness under these circumstances that causes professional despair. My early eclamptic cases are still fresh in my memory and the mental agony I underwent in caring for these I frequently live over again. Unfortunately toxemic cases occur mostly among our poorer patients, since in the cases where we are engaged for months beforehand to attend we insist that the urine be sent us every week and finally twice weekly for examination. Our patients are instructed to report if signs of ædema are noticed in ankles, feet or face, or if dimness of vision, headache or epigastric pain is experienced, since if these precautions are observed eclampsia will seldom surprise us. I have not had a case of eclampsia in the last half-dozen years among the patients who had beforehand engaged Most of these cases are preventable. If the ordinary case and the instrumental case should have hospital care, for the eclamptic case this is indispensable. I invariably have these cases removed there, and I have even improvised transportation facilities and carried patients twenty miles when they had from one to three convulsions on the road, and in no case have I had cause to regret it. I have had seven consecutive cases—a small number, of course recover in our local hospitals and I cannot boast of anything like such record in the private home. Let us never neglect to remove these patients to the place which quickly furnishes us with everything requisite to combat them, and I am sure we will have better results. It has been my practice, and I think also that of many of my confreres, when a woman calls us who is more or less ædematous, complains of headache, is somewhat mentally blunted, passing only a small amount of a highly albuminous urine, to have her sent to the hospital for observation and care. If under treatment her condition improves she is allowed to proceed to term, but if in spite of everything she remains stationary or grows worse, especially if she has reached the eighth month, labor is induced. Quite a number of such cases have come under my observation and I know of no maternal mortality, while it is exceedingly infrequent that the children do not

survive. In such cases I generally deprive the patient of food of all kinds for the first day or two and work her organs of elimination to their utmost capacity. So far as the kidneys are concerned, and despite the fact that there is some dropsy, there is no better diuretic than an abundance of pure water. Martin, I think it is, says that "notwithstanding the oversupply of fluids in the tissues the blood lacks fluid," and to this lack he attributes the conclusive seizures. If there is nothing in the pulse rate or the blood tension to contraindicate it, I always depend on the old calomel squill and digitalis pill recommended by Williams, of Baltimore, and for elimination by the bowels epsom salts in saturated solution has always been my sheet anchor. It is sometimes marvelous what improvement will take place in these cases by keeping the bowel washed out by high saline injections. For the case that has reached the eighth month which is standing still or gradually growing worse do not temporize. The induction of labor will give the mother an excellent chance, the child a fair one. In any case, the chance for the child is infinitely better than after convulsions have occurred. When the patient actually has eclampsia the trend among obstetricians seems to be not to induce or hurry labor. Maybe this is right, I cannot say. I do know I have seen and examined cases just before their first convulsive seizure and there was absolutely no cervical dilatation, no indication of commencing labor, and when three or four attacks had occurred the cervix had been effaced and there was expansion the size of a silver dollar. It seems as though this might be a hint from nature as to what to do. In all my eclamptic cases I have effected delivery as quickly as was consistent with the integrity of the birth canal. This ought certainly to be the rule unless the patient can be every moment under observation. Until I find something better I shall follow it.

Every remedy used for eclampsia seems to have its contraindications. Chloroform has been used to control convulsions, but the liver picture found post mortem in these cases corresponds almost exactly to that of chloroform poisoning. Unless "Similia similibus curantor" be true, it ought to be used with care. My own objection to it is that unless pushed to the point of narcosis it does no good, and this cannot be maintained indefinitely. There is generally no intimation of the oncoming seizure, and the prevalent custom of holding a chloroform mask over the patient's face when breathing is suspended must be done more for the edification of the onlooker than for the benefit of the patient. Veretrim viride is useless unless blood tension is high. Morphine controls the convulsions, but it checks

practically all the secretions. Objections can therefore be urged against nearly all remedies.

In my own practice I have followed the example of Tweedie, of Dublin, and Polak, of New York; I have used morphia, and though I have not dared to use it as generously as they, yet I have used it freely. Give it subcutaneously until the convulsions are either controlled or the respiration rated so lowered as to serve as a warning against further administration. Pass a stomach tube and wash the stomach until the water returns clear, then throw in three ounces of a saturated solution of sulphate of magnesia. I have read that two ounces of castor oil with three drops of croton oil acted better, but I have always had difficulty in getting it through the tube. Dropping croton oil on the back of the tongue, as recommended by some, has never given me results; I have had altogether better luck with the magnesia. Wash the bowel out with high injections and repeat every four hours. It removes offending matter from this source and aids the action of the cathartic. See to it that the bowels act freely, and if at the end of six hours they have not, repeat the magnesia.

So far as the use of veratrim and blood letting are concerned one must be governed by blood tension. I have read somewhere, just where I do not know, that venesection should be practiced when the systolic pressure reached 175 or over, and here probably veratrim would also be indicated. Diaphoresis, especially by the hot pack, is good unless contraindicated by the condition of the circulation. I recall one patient with a weak heart who died in the pack. Whether the disease or the heat was the cause of death I cannot say.

One remedial measure that always seemed to me to do good is the subcutaneous use of normal salt solution. I feel quite sure even in the face of marked ædema that this remedy does good. It acts probably, as Martin suggests, by increasing the fluidity of the blood, maybe by diluting the poisons. When the circulation is failing I use adrenalin with it. As a diuretic water is the best, and when the patient is unable to swallow it should be given through the stomach tube. Plenty of fluids given by the stomach, a pint of salt solution under the breast every four hours, keeping the bowels flushed and the skin active in most cases will carry the patient through. Symptoms of circulatory failure must be treated as they arise and by the usual methods.

I have indicated a few, and only a few, of the problems that confront the general practitioner in the obstetric field. Of course there are others, but time does not suffice even to name them.

My conclusions are these:

- 1st. In general practice more attention should be devoted to obstetric cleanliness. We should not let the surgeon outdo us.
- 2nd. Every lying-in woman should have the care of a trained nurse. The very best and no other should be selected.
- 3rd. When possible have the expectant mother sent to the hospital for confinement. She will make a more satisfactory recovery and will better learn how to care for her baby when she goes home.
- 4th. Do not have too many instrumental deliveries. Give nature a chance. Time and patience will relegate many a looked upon instrumental case into an ordinary one.
- 5th. Before instrumental delivery be thoroughly prepared and have sufficient trained help when obtainable.
- 6th. Urge pregnant women to engage their attendants early and watch each case carefully. Toxemic troubles are generally avoidable.
- 7th. When eclampsia occurs remove the patient when possible to the hospital, control convulsions by morphia and use every available means of elimination.

DISCUSSION.

DR. THAVER: The paper of my friend, Dr. Mann, on obstetrics, I am not competent to start a discussion upon, but there is one thing in connection with that that we are all interested in, and I take it, Mr. President, that in this new era we want everybody to talk right out. The people of Maine have been given what we here think is a wrong impression about the Houlton doctors. They have been led to think that the doctors up there want Mahomet to come to the mountain—no, not that, they want the mountain to come to Mahomet—and that no woman is to be confined unless she comes to the hospital in Houlton, and, if she won't go there, she must not have her baby. That is the general impression that some people have. Now I hope Dr. Mann may find time in the discussion to set us right, as I know he can, about that.

DR. SMITH: Relative to Dr. Mann's paper, we have all heard a good deal about Houlton this winter, and I have no doubt that the doctors have come in for some unjust criticism. We would all like to have our patients, if possible, go into the hospitals for their confinement—it is an ideal arrangement—but there are some things that stand in the way of it. In the first place, our hospitals are pretty full all the time. Here in Bangor, two of the private hospitals refuse to take ob-

we have only one maternity hospital. You can see, then, that all these babies cannot be born in the hospitals, and surely you who practice medicine fifteen or twenty or twenty-five miles away from a hospital cannot be expected to put your patients, every time they have a baby, in a general hospital. But we can exercise that thing that Dr. Mann has so forcibly presented—cleanliness. I think that is a thing that we should be very, very careful about. As to shaving the patients, there will be some question in the discussion that is to follow, I am sure; but we certainly can observe the strictest cleanliness. I do not suppose there is any doctor to-day who would handle a case of obstetrics without observing surgical cleanliness, with rubber gloves and all those things. Surely he should not.

DR. MILLIKEN, of Readfield: I would like to ask Dr. Mann a few questions, that is, what percentage of physicians shave the vulva in cases of confinement; also if there is not a certain danger of sepsis in shaving the vulva where nature has provided, as I understand, a more or less antiseptic condition of the vagina at that time? I ask for information, whether there is not some danger in shaving. Also I would like to ask what percentage of practitioners use rubber gloves in confinement cases.

DR. HUNT: I want to speak just a moment about the other papers which are in some respects admirable, but we must not flatter ourselves that we know it all. Suppose that every one who is in general practice could follow the advice given in this paper on obstetrics, where are your nurses coming from? You cannot get them. If I wanted one to-day for a surgical case, I would have to comb the whole town to get one. They cannot be had. They have made nursing so expensive and nurses so scarce by the long terms in the hospital that there are no nurses; they are all engaged. [Applause.]

DR. MANN: Mr. President, an explanation has been asked of the action of the Houlton physicians last winter in confinement cases. The physicians only said to the people that they did not care to take cases outside of the village, but no physician in Houlton refused to go outside of Houlton in any emergency case that came along. I, myself—and I have practiced twenty-nine years—went out fifteen miles one night.

I have been asked how many women have the vulva shaved before labor. I can only answer that with relation to my own section. There is no woman confined in Southern Aroostook—not that I know of—who does not have the vulva shaved by the nurse that the doctor generally takes with him in his confinement case.

In my judgment, shaving the vulva is no menace to the woman whatsoever. The vulva is soaped and shaved. After it is shaved a sterile pad is put over it and the abdomen and thighs cleansed. Then the vulva is cleansed. How many men wear rubber gloves? All of the men in my community do. I think it is much safer and I think it ought to become a general practice. I think so far as the shaving and cleansing of the vulva is concerned, if we will follow the instructions of Tweedy, of Dublin, that we will find that the shaving of the vulva is not only not a menace, but of very great benefit to the patient.

*THE DIAGNOSIS OF TUBERCULOSIS.

By Edward O. Otis, M. D.

The diagnosis of tuberculosis depends upon two main lines of investigation: First, the history and symptoms of the case, and second, the physical examination of the lungs. Of the two the first is the most important, especially in the early period of the disease, when physical signs are few or indefinite. Symptoms indicate a general constitutional disturbance caused by the toxins of the infecting bacilli, that is active disease just as any other infectious disease, when active, produces constitutional disturbance. Lack of symptoms indicate only a local disturbance without general toxemia, whatever may be the physical signs. Sometimes the symptoms are indefinite or inconclusive, and it is only by the co-ordination of such symptoms as exist with the evidence the physical signs give that we can approach a definite diagnosis. Sometimes, as we all know, such is the deficiency in symptoms and physical signs that it is impossible to make a definite diagnosis, and we can only keep the patient under observation and depend upon time to give us more definite evidence one way or the other. .

Now what are the leading symptoms which indicate the constitutional disturbance caused by active tuberculosis? They are fa-

^{*}Paper delivered Aug. 2, 1921, at the Clinic for Physicians at the Fair-field Sanatorium, under the Auspices of the Maine Medical Association and the Maine Public Health Association.

miliar to us all and are as follows: A slight cough with slight expectoration, loss of weight and strength. The latter symptom, loss of strength, I consider of especial importance, for it is sometimes and not infrequently the main complaint of the patient. There is generally a rapid pulse, with more or less elevation of temperature in the afternoon, often digestive disturbances, and nervous instability, which may deceive one in thinking the case is one of neurasthenia. There may or may not be night sweats, and in somewhere about 50% of the cases one of the first symptoms may be a hemorrhage. Of course, not all these symptoms exist in any one case, but there should be enough to indicate that active disease is in progress.

With regard to the past history of the patient, personally I do not consider the family history of as great importance as it is generally considered. Of more importance is the past history of the patient with regard to his mode of life and occupation, the diseases he has suffered from, and in general whether or not he has lived a fairly hygienic life. After having obtained all the evidence we can in the investigation of the symptoms complained of, we next proceed to the physical examination, and here we can accomplish this in a more thorough and complete manner if we follow a definite routine, and we make for this purpose the four general divisions of inspection, palpation, percussion and auscultation. In the first place, much knowledge can often be obtained by inspection. We note whether or not there is any depression above or below the clavicle on one side more than on the other; again, whether one side in respiration moves more freely than the other, that is, is there a lagging on one side. After obtaining all the knowledge we can from inspection we place our hands flat over each side of the chest in front and ask the patient to pronounce some sonorous word like ninety-nine or twenty-three, and note whether there is markedly increased fremitus on one side over the other. The same maneuvre is to be applied to the back and axillary regions. It must be borne in mind that normally the voice sound is louder at the right apex than at the left. Furthermore, unless one has a reasonably resonant voice, palpation is of little aid. Next, percussion. It is my opinion, best to begin below and percuss up, for one is more likely to obtain the normal percussion sound in the lower part of the lung, which may be a guide in percussing other parts. In percussing above the clavicle one must bear in mind the resonant isthmus of Kronig, which is about three fingers wide, for if this isthmus is narrowed it indicates some possible disease at the apex. After each side has been percussed in this way, both are

to be compared one with the other and a judgment is to be formed as to whether there is any dullness or lack of normal resonance. In the same way the back and the axillæ are to be percussed. Next, auscultation. In the first place, one should have clearly in mind the sound of normal respiration and of bronchial respiration. One can refresh his memory as to these two sounds by ausculting some portion of the lung where normal respiratory sounds are supposed to exist and by placing the stethoscope under the lobe of the ear where typical bronchial respiration may be heard. Slight modifications of respirations are difficult to determine and one does not place much weight upon them, but harsh respiration and prolonged expiration, in other words, broncho-vesicular respiration, are so different from the normal that they mean more or less infiltration of the lungs, which, of course, may be a purely fibroid condition or an old healed process without any present activity.

We next seek for rales, for, after all the persistent moist rale at one or the other apex is the most definite and characteristic physical sign of tuberculosis. Of course one must never forget to have the patient take a slight cough while listen for rales, and in doing this one should pay especial attention to the spaces above and below the clavicle, and the spaces between the second and third ribs in front and the supraspinous fossæ behind. Although tuberculosis practically always begins at the apex of the lung, and anything found in the base while the apex is clear is not tuberculosis, yet the bases should always be carefully examined, for they may be the seat of other diseases. After the symptoms have been obtained and the careful physical examination made by the method indicated above, then the whole evidence is to be brought together and the diagnosis made if it can be. On this general plan of physical diagnosis we shall proceed in these clinics, only for the sake of instruction I shall omit the assembling of symptoms and proceed at once to the physical examination. Before doing so, however, a few general observations regarding tuberculosis may be of interest. First, pulmonary tuberculosis, as we see it, is a chronic disease with a tendency to heal by the formation of fibroid tissue, and the earlier we make the diagnosis and put our patient under treatment the better the chance of arrest and the shorter the time to accomplish it. Second, pulmonary tuberculosis can be successfully treated at home and must be in the larger number of cases, for there will never be enough sanatoria for all cases. There is no specific treatment, either by drugs or vaccines, but we must depend upon nature's remedies, rest, fresh air and nourishing food. All are essential, but the most important is rest, and all through the treatment much rest is indicated. Of course if there is temperature, the patient must be kept absolutely at rest in bed. It requires painstaking care and arrangement on the part of the physician to successfully treat a patient at home. It is not enough to tell the patient in a general sort of a way to follow out the three great elements of the cure, but a definite and detailed program must be made out for him, and the physician must see him often enough to see that this program is carefully followed. Of course a certain period, if but a month, spent in a sanatorium is a good training to the patient in carrying out the method of the cure.

In conclusion, the diagnosis of pulmonary tuberculosis is not as a rule difficult if one will painstakingly follow the routine indicated and is willing to devote the time to make a careful examination. It must be borne in mind, however, that even the most skilled expert is sometimes unable to make a diagnosis because the evidence is lacking. In all I have said I have not referred to the aid of the X-ray. This, of course, is of value and an aid in diagnosis, but I do not consider it necessary in making a diagnosis, when it can be made if careful study and attention is given to the symptoms and the physical examination. As to the extent of the disease and the change under treatment, the X-ray gives us very valuable information. One additional word, and that is, one cannot too often examine normal chests in order to have fresh in one's mind the normal sound from percussion and normal respiration. It is hardly necessary to add that in every case one should examine the sputum, and if no tubercle bacilli are found this examination should be many times repeated if there are suspicious symptoms of tuberculosis.

*CANCER CONTROL.

By John C. A. Gerster, New York City.

Approximately 85,000 deaths from cancer occur yearly in the United States. There is a decided increase in the death rate—in 1900 the death rate was 63 per 100,000 in 1917, 81 per 100,000. An average of ten months elapses from the time the patients first notice symptoms until they bring themselves to seek medical advice. (C. A. Powers), and an average of three months elapses from the time the operation is advised before consent is actually given and operation takes place (C. C. Simmons' and E. L. Daland's experiences in the Massachusetts General Hospital). Generally this loss of invaluable time comes from ignorance on the part of the patient. Protection lies in periodic physical examination. This means early diagnosis, early operation—where the tumor is small—lessened danger from the operation itself, and an infinitely better chance of escaping recurrence. The vaule of periodic physical examination may be explained to a lay audience in simple words. For example, failure to see the dentist every six months or so, means infinitely more suffering when one finally comes under his hands. If this be true about the teeth, periodic examination of the rest of the body, at least once a year, must be worth while. The very fact that the doctor usually finds nothing wrong at such an examination is reassuring; one feels relieved when the dentist says, "Nothing is to be done."

Physicians must educate the public to appreciate that physical examination is not complete without examination of the pelvic organs. The saying of Oliver Wendell Holmes, that "The family physician examines the patient, but the specialist examines the rectum," is still true at times. The public must not only learn to consent to pelvic examination as part of a complete physical examination, but to demand it, if omitted. At the Mayo clinic no patient is accepted for treatment unless a comprehensive thorough examination is made. As a result of this sound routine, a number of early cancers are discovered in patients who come for treatment of some ailment of an entirely different nature, often in some other region of the body than the one where the cancer is found. When these people are operated on, the operations are not of great magnitude, and these patients have remained free from recurrence beyond the five- and ten-year periods.

^{*}Paper delivered Aug. 2, 1921, at the Clinic for Physicians at the Fairfield Sanatorium, under the Auspices of the Maine Medical Association and the Maine Public Health Association.

Another light on the value of periodic physical examination was revealed by the findings of draft boards throughout the country. Thousands of young men who believed themselves to be perfectly well were found to have defects or diseases, the existence of which they had not suspected. Many of them had never been to a doctor before. As a result, their correctible defects were remedied and those with chronic diseases were properly advised what steps to take in conserving their health,—thus prolonging their lives.

Regarding so-called "precancerous" skin conditions, it seems queer that the nearer to the skin a condition requiring surgical treatment lies, the more difficult it is to obtain the patient's consent for operation; or, conversely, the graver the condition the easier is consent for operation obtained. Thus a person with gallstones or appendicitis consents more readily than one having a hernia. The hernia patients consent more readily than those with varicose veins. In cases of moles, warts or wens, obtaining consent is most difficult, although removal of these superficial skin lesions entails the slightest risk. The speaker remembers a recent illustrative case where a woman of sixty, who readily consented to a laparotomy for carcinoma of the stomach, made every one solemnly promise not to remove a large, pedunculated, raspberry-like fibromo on her upper lip while she was under the anesthetic.

The practice of waiting a week or ten days for the pathological report after excising a small piece of tumor for microscopical examination cannot be too strongly condemned. Such incisions are known to stimulate slowly growing cancers, so that they spread like wildfire. Such exploratory incisions should only be made with a pathologist in attendance who can report microscopical findings within a few minutes. If cancer is reported, a radical operation is then performed, subjecting the patient to least risk from operative dissemination of cancer cells. No one with a surgical conscience should think of excising a tumor of the female breast without a pathologist in attendance. Failure to observe this rule a few years ago, in a large metropolitan center, led to radical amputation of the breast in a girl of nineteen for a supposed carcinoma which the later pathological examination proved to be a fibroma.

In closing, the educational campaign of the American Society for the Control of Cancer was briefly outlined. This took place throughout the United States during a "Cancer Week," October 30 to November 5, when as large numbers of the laity as possible will be reached.

Regarding the good to be accomplished by instruction of the lay public, Dr. Bloodgood of Johns Hopkins, was quoted as saying he felt that he had accomplished more from educating his patients regarding the essential facts about cancer than he had by his actual operations for removal of cancer.

JOURNAL OF MAINE MEDICAL ASSOCIATION

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Editorial Comment.

NATIONAL CANCER WEEK.

The carrying out of the National Cancer Week, instituted by the American Society for the Control of Cancer, has been vigorously undertaken in this state through the combined efforts of the Maine Public Health Association and the Cancer Committee of the Maine Medical Association.

Our thanks are due to Mr. W. B. Thurber, of the Maine Public Health Association, for the energy displayed in furnishing and distributing to every physician in the state the various forms of literature which have been provided. This work by Mr. Thurber has greatly simplified and made more efficient this campaign.

While it has been impossible to get under way all of the activities proposed for Cancer Week, it is the intention of the committee to continue with this work as energetically as possible throughout the whole winter.

The providing of a standard lecture to be read by every physician has greatly simplified the placing of the desired facts before the largest number of people possible.

The Cancer Committee wishes to express its hearty appreciation of the fine spirit of co-operation shown by the medical men of the state in taking up this rather new, and possibly sometimes discouraging, work. We feel sure, however, that if a sustained effort is made, that the desired results will be accomplished in a comparatively short time, as indicated by the enthusiasm and interest already awakened.

Any further information regarding this campaign will be gladly given either by Mr. Thurber, of the Maine Public Health Association, or members of the Cancer Committee. We hope still to have the hearty co-operation of every physician in the state.

E. H. RISLEY.

County News and Notes.

SECRETARIES' MEETING.

The first meeting of Secretaries and Councilors, together with the officers and members of the committees on Public Relations, Medical Defense and Scientific Work, was held at the Bangor House, on Thursday evening, October 13th.

Those present were: President, Dr. Addison S. Thayer; President-elect, Langdon T. Snipe; Secretary, Bertram L. Bryant; Councilors, C. B. Sylvester, E. V. Call, W. E. Kershner, F. H. Badger and C. H. Burgess; Secretaries, F. E. Bennett, E. E. Holt, Jr., G. A. Neal, H. D. McNeil, C. N. Stanhope, R. C. Hannigen, C. E. Richardson, C. H. Stevens, H. B. Mason; Committees, R. W. Wakefield, F. N. Whittier, S. J. Beach, T. E. Hardy, E. D. Merrill, F. Y. Gilbert, C. F. Kendall.

After supper, the President presided. The Secretary briefly outlined the work of the Association and Secretaries for the coming year. He emphasized the necessity of having an active man for Secretary in every county society, and suggested that he be elected for a term of five years; that all bills be sent out promptly on January 1st, and that all reports and receipts be sent in to the Secretary before April 1st each year.

Dr. Hardy reported for Medical Defense, that satisfactory arrangements were being made with an "Old Line" insurance company for liability insurance for all members of the Association at a very reasonable rate.

Dr. Beach, chairman of the new Committee on Public Relations, spoke of several matters already before the committee, especially of what should be the attitude and relation of the physician toward community work and the public health nurse. The subject was freely discussed, and it was the opinion of those present that the committee should undertake the drawing up and publication of suggestions and instructions for those engaged in this work.

The Scientific Committee made considerable progress on the program for the annual meeting, to be held in Portland next June.

This meeting was the most important and successful Secretaries' meeting we have held, and a good start was made on the most important work of the Association for the coming year. The next meeting will be held in Portland at the call of the Secretary.

BERTRAM L. BRYANT, Secretary.

ANDROSCOGGIN.

ANDROSCOGGIN COUNTY MEDICAL SOCIETY.

The regular meeting of the Androscoggin County Medical Society was held in the Municipal Court Room, City Building. Lewiston, Nov. 1, 1921.

The meeting was called to order by the President. The records of the previous meeting were read and approved. The president, Dr. Andrews, read several communications.

Dr. Call stated, in regard to the Cancer Control Week, that he understood that Dr. Andrews, the President, was to appoint men to lecture before different organizations. The President suggested to delay the matter until a later date, when we could have a cancer clinic for a few days, and publish in the papers.

Dr. Call, seconded by Dr. O'Connell, moved that a committee, consisting of the President and the Secretary, should endeavor to find a local man to write a paper to be read at the next meeting, and have a feed at a local hotel.

The President suggested that a committee should be appointed to bring in nominations at the annual meeting. This met with the approval of all the members present. The President appointed Dr. Call, Dr. Randall and Dr. Dumont to act on that committee.

Dr. Call explained the medical defense.

Move to adjourn.

Doctors present: S. L. Andrews, Geo. O'Connell, R. N. Randall, E. V. Call, W. W. Bolster, D. Barrell, R. Morin, E. Giguere, G. E. Desaulniers, H. L. Gauvreau and L. J. Dumont.

L. J. Dumont, M. D.,

Secretary.

AROOSTOOK.

AROOSTOOK COUNTY MEDICAL SOCIETY.

The semi-annual meeting of the Aroostook County Medical Society was held in the Court House at Houlton on October 11, 1921, at 10.30 o'clock. There were only fourteen of the fifty members present, owing to the bad condition of the roads and the long distances they have to travel. But what the meeting lacked in numbers it made up for in enthusiasm, for we had a most interesting day.

The President, W. E. Sincock, of Caribou, was in the chair, and the general business was transacted.

Dr. Philip P. Thompson, of Portland, was a guest of the society and read an excellent paper on "The Modern Treatment of Empyema," which was heartily discussed, as many new ideas were brought out.

Dr. H. E. Small gave a paper entitled "Diarrhœa in Bottle-fed Infants," and Dr. G. A. Hutchins, District Health Officer, read a paper on "The Future of State Health Work." Each paper was well discussed.

A case was reported by Dr. Donovan, of Houlton, of the removal of an enormously enlarged spleen from a woman of twenty-two. As the cause of this condition, which had lasted a long time, was obscure, the tissue not yet having been examined microscopically, full report in a paper form is promised for the June meeting.

Dr. P. E. Gilbert brought up the subject of asking the Maine Medical Association to meet in Houlton in June, 1923. This met the approval of all present, and a committee was appointed to see to the matter, consisting of Drs. Gilbert, of Ashland, Mann, of Houlton, and Kalloch, of Fort Fairfield, and when these Aroostookians turn their big guns on the members of the Maine Medical Association in Portland next June, there will be a unanimous vote for the meeting to be held in Houlton in 1923.

As our county is large and the doctors scattering, it is hard work to get to the meetings, but with only two being held each year, it does seem that each could spare at least two days away from work to attend these meetings. No doubt some feel that they can't learn anything new, and others are afraid they might be asked for a talk or paper and are shy, but such shyness will soon wear off and be forgotten if you will only attend the meetings. Plan to come to Fort Fairfield in June and bring along a brother practitioner, and ask every new doctor in your town to join his county society.

F. E. BENNETT, Secretary.

PENOBSCOT.

PENOBSCOT COUNTY MEDICAL ASSOCIATION.

The regular meeting of the Society was held on Oct. 18th, at the Bangor House.

At the business meeting, B. L. Bryant, M. D., Secretary of the State Association, gave an interesting talk on the block insurance, so-called, and there was discussion on the subject by the members present.

At the dinner, Dr. Herbert T. Clough gave an interesting and most instructive paper on "Radium" which was thoroughly discussed by many of the members.

Those present were: Drs. Galen M. Woodcock, H. C. Scribner, H. W. Johnson, Hampden; Allen Woodcock, C. M. Thomas, A. K. P. Smith, O. R. Emerson, H. W. Chapman, C. P. Thomas, Brewer; J. J. McVetty, Corinna; Daniel McCann, E. E. Brown, R. D. Walton, Frankfort; M. E. Grimley, C. H. Burgess, W. E. Whitney, W. S. Purrington, J. F. Starrett, H. D. McNeil, J. F. Cox, L. H. Smith, Winterport; H. J. Milliken, Leonard H. Ford, Edw. R. Herlihy, E. B. Sanger, Harty W. Osgood, Barbara Hunt, Norman R. Cook, Newport; John B. Thompson, W. C. Mason, A. W. Fellows, W. E. Fellows, H. T. Clough, J. B. Woods, Daniel A. Robinson, B. I. Bryant, L. H. Blanchard, C. J. Hedin, Bangor.

SOMERSET.

SOMERSET COUNTY MEDICAL ASSOCIATION.

The Somerset County Medical Association held their fall meeting at Bingham, Thursday, Oct. 6th. The meeting proved to be one of the best meetings ever held by the association.

Dr. Addison S. Thayer, President of the State Association, was present and spoke to the members.

A paper on "Eclampsia" was read by Dr. C. E. Richardson, of the Somerset Hospital, Skowhegan. The paper was supplemented by case histories of several cases that the writer had had.

Following the paper a general discussion was held, in which every member present took part.

After the program another one of those famous dinners for which the association is noted was in order. This dinner included deer steak, fried partridge's breasts and lobster salad.

NEW AND NON-OFFICIAL REMEDIES.

During October the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

Davis and Geck:

Kalmerid Germicidal Tablets. Potassium-Mercuric-Iodide.

Eastman Kodak Company:

Eastman Barium Sulphate for Ræntgenology.

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Amount collected from our members

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in 1920

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\$145,038,00

in 1920

Saved for future protection of members

\$47,825.00

in 1920

Total returned to members and saved for future protection

\$192,863.00

in 1920

Expense of operation less than

\$2.30

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This kind of real insurance cost our members \$13.00 for an accident policy paying \$25.00 weekly and \$5.00.00 death benefit, or \$26.00 for two such policies, while the health policy, covering any illness beginning thirty days after date of policy, except venereal, epilepsy or insanity, has never exceeded \$17.00 per

\$3.00 membership fee will now carry either policy until Mar. 10, 1922.

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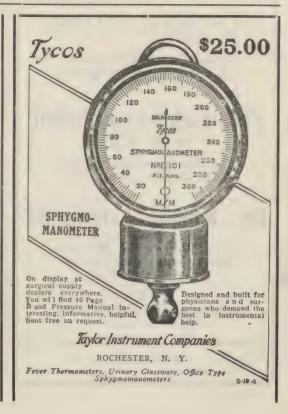
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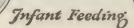
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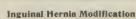
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All papers, case reports, etc., should be typewritten when possible.

Proof-sheets will be sent to the author when requested.

Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

Vol. XII.

DECEMBER, 1921.

No. 5

*A CONSIDERATION OF PNEUMONIA AND SOME OF ITS COMPLICATIONS.

By Frederick T. Lord, M. D., Boston, Mass

At your meeting last year I had the honor of addressing you under the title of 'Non-tuberculous Pulmonary Disease' and then discussed a variety of subjects. To-night I propose to consider pneumonia and some of its complications. It seems especially fitting that I should speak more at length of pneumonia, as I see by your program that much of your time will be occupied by a discussion of pulmonary tuberculosis, and it should not be forgotten that of all the pulmonary problems confronting us as clinicians and investigators, pneumonia now heads the list in frequency and importance. Referring to pneumonia Osler writes: 'One of the most widespread and fatal of all acute diseases, pneumonia has become the 'Captain of the men of death,' to use the phrase applied by John Bunyan to consumption.'

Do you realize that in this country about 10 per cent. of all deaths are each year due to some form of pneumonia and that this toll of lives has been annually maintained, with little apparent variation, for many years? Under certain conditions, and especially where there is overcrowding, the incidence of pneumonia exceeds its usual prevalence, as in 1906 among the negroes employed in the

*Paper delivered at clinic for physicians at Fairfield Sanatorium under the auspices of the Maine Medical Association and the Maine Public Health Association.

construction of the Panama Canal, where the death rate reached eighteen per thousand, and in 1912 among negroes working in the mines on the Rand, where it rose to twenty-six per thousand. But the most serious visitation of modern times occurred during and after the recent influenza pandemic. The number of those who perished from pneumonia following influenza is enormous and cannot be given in exact figures for the population at large, but is sufficiently impressed upon every physician of this generation who passed through the pandemic. The importance of pneumonia as a cause of death in the United States army is indicated by the report of Vaughan and Palmer. Of about 4,000,000 men, there were 40,000 deaths from combat and 47,000 from disease, and of the latter more than 50 per cent, were due to pneumonia before the influenza pandemic in 1918 and over 90 per cent. during the pandemic. Omitting the influenza period from consideration, pneumonia was nine times more frequent in the army than among civilians of the same age. The increased incidence of pneumonia in the army may be ascribed to the prevalence of measles and influenza, and an increased opportunity for contagion in the close contact of susceptible persons in barracks, tents and the mess. Other factors are a lowering of resistance by exposure, overwork and fatigue.

There are certain aspects of the etiology of pneumonia which are worthy of emphasis. It is to be recognized that a history of an acute infection such as accompanies a "cold" can be obtained in from 25 to 50 per cent. of all cases of lobar pneumonia, and such an infection is to be regarded as an important predisposing cause, the specific agent of the "cold" as yet unknown, probably serving to carry down and implant the pneumococcus in the deeper parts of the respiratory tract and thus favoring invasion of the lung itself. Such specific upper tract infections as accompany measles, influenza and whooping cough likewise serve to implant the pneumococcus in the lung and favor the development of pneumonia. In this connection may be mentioned the influence of operation under a general anesthetic as a predisposing cause. Post-operative pneumonia is at times erroneously spoken of as "ether" pneumonia, on the assumption that it is due to irritation of the lungs by the vapor of ether. It is, however, to be regarded as an autoinfection from the aspiration during narcosis of bacteria normally inhabiting the mouth. Inquiry of patients with post-operative pneumonia often discloses that the operation was undertaken when an inflammation of the upper part of the tract, such as a "cold," tonsillitis, laryngitis or bronchitis, was actively present or subsiding, and the pneumonia usually develops within twenty-four to forty eight hours after the operation. The pneumonia may follow the administration of any general anesthetic, is more frequent after abdominal than other operations, occurs in from 1 to 4 per cent. of laparotomies, and is responsible for about one-quarter of all deaths following operation under general anesthesia. The obvious remedy is to make inquiry concerning the presence of an acute respiratory infection when operation is under consideration and to postpone other than emergency operations until the respiratory infection has wholly subsided. When in the presence of such an infection operation is imperative, however, local is to be preferred to general anesthesia. If a general anesthetic is necessary, gas oxygen or chloroform is less likely to be followed by aspiration pneumonia than ether.

The pneumococcus is to be regarded as practically the only cause of lobar pneumonia and the most common single cause of bronchopneumonia. The pneumococcus is a common inhabitant of the normal mouth and is harbored in the mouth secretions of fully one-half of normal persons. Recognition of the pneumococcus extends over a period of about thirty years, and a knowledge of its importance as the infecting agent in pneumonia embraces a period of about twenty-five years. It is only, however, during about ten years past that we have known that all pneumococci are not of equal importance as a cause of pneumonia. The kind of pneumococci most frequently the cause of pneumonia is not commonly present in the normal mouth.

We are indebted to Neufeld in Germany and Dochez and Gillespie in this country for pioneer work in the recognition of different types of pneumococci and to Cole and his other co-workers at the Hospital of the Rockefeller Institute for subsequent extension of this knowledge. By appropriate protection and agglutination experiments three "fixed" types have been split off from the great group of pneumococci. In the first column (A) of the table (page 143) the groups are indicated by the Roman numerals. Types I, II and III are the fixed types, while type IV is made up of a group of organisms each strain of which has individual characters. Experiments in animals indicate that protection against any one strain of organisms of types I, II or III is effective against any other strain of this same group, hence the term "fixed" type, but that protection against one strain of type IV is effective only against that one strain and not against other members of the same group. Type IV is, therefore, spoken of as a heterogenous group. The

second column (B) shows the incidence of the different types in the normal mouth. Types I and II are only rarely present in the normal mouth, while III and IV are common.

The table still further indicates the approximate frequency of the different types in pneumonia. There are no reliable figures concerning the frequency of the different types in bronchopneumonia, but the number of plus signs will serve to give an idea of the grouping. As shown in column C, Type IV is most common in bronchopneumonia, as in the saliva of normal persons, Type III is probably next in frequency, and Types II and I are only rarely present. This grouping of types in bronchopneumonia is what is to be expected, as bronchopneumonia is to be regarded as an autogenous and descending infection, and the flora of the normal mouth to a large degree determines the kind of bacteria to be carried down into the deeper parts of the tract.

The relation of the types of pneumococci to lobar pneumonia is also shown in the table (column D). Of every one hundred cases of lobar pneumonia approximately thirty will be due to Type I, thirty to Type II, fifteen to Type III and twenty-five to Type IV. The increased incidence of Type I and Type II, which together occur in 60 per cent. of the cases of lobar pneumonia as compared with their infrequency in the normal mouth and in bronchopneumonia, is at first sight peculiar and needs a word of explanation. While these two types are uncommon in the normal mouth, their incidence may rise among those in intimate contact with patients with lobar pneumonia, such as nurses, attendants, relatives and friends, to as high as 13 per cent. (Avery, Chickering, Cole and Dochez, Monographs of the Rockefeller Institute for Medical Research, No. 7, October 16, 1917, p. 95). This limited distribution of Types I and II to lobar pneumonia and contacts with lobar pneumonia suggests that these types give rise to pneumonia by contact and that pneumonia due to them is to be regarded as a communicable disease. These considerations make it desirable that isolation of patients with lobar pneumonia and precautions against transfer of the infectious agents be instituted with much greater care than has hitherto been the practice. The occurrence of a disease-producing type of organism in a small proportion of healthy carriers is of course not peculiar to pneumonia. Healthy carriers of the meningococcus, the diphtheria bacillus and the typhoid bacillus are not uncommon. Lobar pneumonia due to Types III and IV pneumococcus, which together represent about 40 per cent. of the cases, may be regarded as arising in consequence of the invasion of the deeper parts of the tract by organisms normally inhabiting the mouth. But from what we know of the increase of virulence of organisms by passage through susceptible animals, it is not unlikely that the acquisition of these types by contact with a patient with pneumonia may increase the likelihood of pneumonia in the carrier or those exposed to him.

There is one other aspect of the pneumococcus to which I want to refer and that is an interesting biologic peculiarity, probably of importance in its behavior as an infecting agent. The pneumococcus is highly sensitive to the reaction of the media in which it grows. In artificial media, growth can be initiated only in a slightly alkaline reaction. Once started, however, growth in media containing carbohydrate such as glucose proceeds until a slightly acid reaction is produced and then stops, with rapid death of the organisms. Into the details of this matter it is not necessary to go, but the extreme sensitiveness of the pneumococcus to slight changes of reaction is such that so slight a shift as from the normal slightly alkaline reaction of tap water to the slightly acid reaction of distilled water standing in the laboratory would suffice to kill the organisms.

Why do patients with pneumonia recover? If the complete answer to this question were possible, it would go far to help solve not only the pneumonia problem but other problems having to do with bodily infection with and resistance against bacteria. A partial explanation of recovery seems possible at the present time, and we are disposed to regard recovery as a dual mechanism—partly a general increase of resistance in consequence of the infection and partly due to local chemical factors.

Concerning the building up of general resistance, which is spoken of as humoral immunity, there is abundant evidence in animals that injection with the fixed types of pneumococci, first with dead and later with living organisms, will after a series of such injections increase the resistance of the animal to many times the otherwise fatal dose of virulent organisms of the same type as that used in the injections. Such injections are highly specific for the type used and afford no protection against other types. Thus injection of Type I protects only against Type I and not against any other types, and the same is true of Type II and Type III. Following such a course of injections, in the horse, for example, the blood serum of the animal acquires certain properties not previously present. It will protect mice against many times the otherwise fatal dose of pneumococci of the same type as that used for the injection of the horse. It will also cause agglutination of the homologous pneumococcus. This protective quality of the horse serum indicates the acquisition of an active immunity in the course of which there develops also the power of agglutination of the homologous pneumococcus. In apparently similar fashion, during the short period from the onset to the favorable termination of pneumonia in man, there is set up a certain degree of immunity. Blood serum from patients with Types I, II or III pneumonia obtained at or about the time of crisis has the power of protecting mice against an otherwise fatal dose of the same type of pneumococci and of agglutinating these organisms. The potency of the human serum is slight, however, compared with that of animals actively immunized by a long series of injections. There is evidence, then, that during the short course of the disease some degree of humoral immunity is produced. Why, then, is it that recurrent attacks of pneumonia may occur in the same patient? It may be that the immunity, while sufficient to terminate the attack, affords no lasting protection. But there is still another explanation. We have observed rare instances of Types I, II and III pneumonia followed by a second attack due to the same type as that giving rise to the first infection, but the repetition is usually due to pneumococci of another type, suggesting that in man there is a certain degree of specific protection against the type of organism causing the pneumonia.

The second of the two mechanisms concerned in recovery may be regarded as a local chemical change affecting the involved lung. The susceptibility of the pneumococcus to change of reaction of the media in which it is grown has already been mentioned. A glucose bouillon culture of the pneumococcus, in which the organisms are rapidly multiplying, quickly changes from an initial slightly alkaline to a slightly acid reaction, with consequent rapid death of the organisms. As the inflammatory process in the pneumonic lung goes through its evolution the amount of blood diminishes and the reaction of the exudate changes from slightly alkaline to a degree of acidity within the range of the acid death point of the pneumococcus. At least this is what seems to take place so far as we can learn from tests of the reaction of the pneumonic lung in dogs with experimental pneumonia and in the determination of the reaction of the pneumonic lung in fatal cases of pneumonia in man. There is, however, this difficulty, that there is no available method at present for testing the reaction during life, but tests immediately after death indicate such a change of reaction. The diminishing amount of serum in the involved region is of importance. We have recently found that varying amounts of blood serum influence the effect of acidity on the pneumococcus and that in the presence of blood

serum the organism is protected to a certain extent from degrees of acidity which would otherwise kill it. Without further elaboration it may be said that at an acidity corresponding to that which the pneumonic lung may reach, the duration of life of the pneumococcus in fluid culture without serum is only about two hours and even 100 per cent. serum suffices to prolong the life of the culture not longer than twenty-four hours. Such considerations have led to the conception that local chemical changes are accessory to humoral factors in recovery, and that a local increase of acidity and diminishing amount of serum make the pneumonic lung unsuitable for growth and multiplication of the pneumococcus, which dies out in the affected lung, and crisis and recovery follow.

Before leaving the more academic aspect of the subject, I would like to call your attention to an interpretation of resolution in the light of certain chemical changes. In your medical school days, as in mine, I have no doubt much stress was laid on the interesting and remarkable changes observed as the pneumonic lung goes through its stages of evolution from the early period of engorgement with blood to solidification, in which the lung is firm and solid from invasion of the alveoli with pus cells and fibrin, thus passing through red to gray-red, red-gray, and gray hepatization. At about the time of crisis this solid, airless lung begins to soften, air sooner or later again enters the involved region, and finally the profound inflammatory changes are replaced by normal lung with intact alveoli and restoration to functional capacity. Chemical studies have thrown a new light on these pathologic changes in the evolution of the pneumonic process and enable us to understand how restoration to normal can finally take place. An essential element in this favorable termination is the presence of the inflammatory exudate within the alveoli without involvement, at least to any considerable extent, of the framework of the lung itself. In the framework itself the circulation, though impaired, is still maintained, and the circulating blood contains an important protective element preventing the melting away of the lung itself along with the transformation of the exudate. Three interesting and delicately balanced factors are concerned in the softening of the exudate.

The most important factor in resolution is a peculiar substance of supreme importance in the chemical activity of all living plant and animal cells and known as an enzyme or ferment. This substance is of fundamental importance, not only in the body, but also in nature as a whole. To it is to be ascribed, among other activities, the ripening of fruit, the tenderness and taste of meat, and the

alcoholic fermentations of sugar by the yeast cell. Within the body perhaps the most familiar example of its action is the digestion of food in the stomach and intestines. Why the stomach does not digest itself has long been a favorite question of the physiologists at the time of student examinations. Enzymatic action is indispensable, but must be confined within safe limits, otherwise the body framework and the cells of parenchymatous organs would themselves undergo digestion. Two protective factors hold it in check. It is inhibited by the blood serum and dependent on the reaction of the surrounding media. Thus the enzyme of the gastric juice has its optimum activity at a strongly acid reaction. Two enzymes are to be found in the pneumonic lung, one active in slightly alkaline, neutral, and slightly acid media. To this enzyme may be ascribed the digestion of the fibrin in the pneumonic exudate. A second enzyme in the pneumonic lung acts best in still more acid media, and to this may be ascribed the splitting of the digestion products to amino-acid nitrogen, in which form it can be readily and harmlessly absorbed. As the pneumonic process goes through its pathologic stages there is increase of cells containing ferment, a diminution of serum containing antiferment and a shift to an acid reaction. In the balance between cellular material representing ferment and serum containing antiferment, enzymatic action is absent with more and present with less than about three parts serum to one part cells. Thus the three factors, increase of cells containing enzyme, diminution of serum containing antienzyme and a change to an acid reaction, permit the softening and absorption of the exudate and restoration of the lung to normal.

The diagnosis of lobar pneumonia is usually made without difficulty from the history of an acute onset with pain in the side, chill, abrupt elevation of temperature, cough with bloody expectoration, shortness of breath, and on examination the signs of pulmonary consolidation. It is important to note the evolution of the initial symptoms to avoid confusion with pulmonary infarction, in which there is pain in the side, chill or chilliness, slow rather than rapid rise of temperature, and cough. Bloody sputum may not appear for a number of hours or two to three days. The diagnosis of bronchopneumonia is, on the other hand, much more difficult, due to its usual occurrence as a complication of some upper tract infection, its insidious onset, irregular course, and frequent absence of definite signs of solidification. For a time the diagnosis of bronchopneumonia may be impossible, and it can only be regarded as probable from the attendant circumstances, the symptoms, and physical signs.

Into greater detail concerning these matters it is needless to go. It is helpful to have the two most frequent complications constantly in mind. These are middle ear disease in children and empyema. Concerning middle ear disease, it is important to remember that it may at this age, and at any age in very toxic patients, be entirely latent and discovered only on otoscopic examination, which should therefore be a part of the routine physical examination. Empyema is so frequent and troublesome as to warrant daily physical examination with its possible presence constantly in mind. Accumulation of fluid should be detected before cardiac displacement occurs. There are many helpful signs in the diagnosis, and in certain cases even all there are are not enough. X-ray examination at times is of considerable assistance, and there should be an early resort to exploratory puncture when other means have failed to settle the question. Something further will be said later of empyema and another complication, pulmonary abscess.

The advances in the treatment of pneumonia during the past ten years make it desirable to emphasize another aspect of diagnosis, and that is the determination of the type of pneumococci concerned. Favorable results in the treatment of pneumonia by Type I antipneumococcic serum depend to a considerable degree on the earliest possible recognition of pneumonia due to Type I pneumococcus, and for this purpose it is essential that a specimen of sputum be obtained and sent to the laboratory at once. The specimen should come from the deeper parts of the respiratory tract and should be collected in a small, wide-mouthed, clean and preferably sterile bottle. The determination of type depends on the multiplication of the pneumococci within the abdominal cavity of a mouse and therefore the addition of an antiseptic to the specimen renders it wholly valueless for examination. In the laboratory a portion of the specimen is smeared on the surface of a cover glass, stained, and examined under the microscope. Another portion of the specimen is injected into the peritoneal cavity of a mouse where virulent pneumococci multiply rapidly. After an interval the abdominal fluid is centrifuged to obtain the organisms, which are then suspended in salt solution and mixed with serum from horses, each immunized with Type I, II or III pneumococcus. The peritoneal fluid is also used in the test. A correspondence of the pneumococci to one of these three types is indicated by a clumping of the organisms or the formation of a precipitate in the peritoneal fluid when mixed with the corresponding serum. The diagnosis of type can in most instances be made by this means within eight to twenty-four hours.

It is not to be expected that practitioners can themselves perform these tests and there should be easily accessible laboratories in every community. In Massachusetts the State Board of Health determines the type without charge. It is our custom to determine the type of pneumococcus in all cases of pneumonia, whether of the lobar or bronchopneumonic type. The number of Type I pneumococcus infections in bronchopneumonia is, however, very small, and the chief obligation on practitioners is for the earliest possible diagnosis of type in lobar pneumonia, in which, as indicated in the table, about 30 per cent. of the cases are due to Type I pneumococcus.

The prognosis in lobar pneumonia depends on many factors, all of which cannot be considered. The total mortality of approximately 30 per cent. represents the outlook in good general hospitals where poverty, diminished resistance from underfeeding, overwork, fatigue, and chronic alcoholism make the mortality higher than may be expected among more favored patients in private practice. The mortality outside of such hospitals may be considerably less than this. Age is of much importance in the outcome. Youth is favorable, and from the sixth to the twentieth year the mortality is about 6 per cent., but rises rapidly as age advances. At thirty-one to forty it is about 26 per cent., at forty-one to fifty it is nearly 40 per cent., and above sixty it may rise to 65 per cent. The type of pneumococci also influences the outlook. About one-third of the cases of Type I and an equal proportion of the cases of Type II are fatal, while nearly one-half succumb to Type III. The mortality is lowest in Type IV infections, only about one-eighth proving fatal in this group. Treatment with Type I antipneumococcic serum lowers the mortality of Type I from about 30 per cent. to about 10 per cent.

Prevention of pneumonia is quite obviously a difficult matter. Indeed it would almost seem, from the undiminished death rate over a long period of years, the high incidence of pneumonia in our army camps and the scourge of post-influenza pneumonia which swept the country in the recent pandemic, that our efforts to prevent the disease have thus far been wholly futile. In spite of its discouraging aspects we should have the three available means of attack clearly before us. One of these is already applicable, the other two promising for the future.

The method available is the application to pneumonia of the simple methods already well understood for preventing the transfer of infectious material from person to person. There is this hopeful aspect of success, in face of the discouragingly persistent high inci-

dence of the disease, that such a method has never been adequately applied in the past, largely because the problem has seemed insoluble by this means. But the recent knowledge acquired regarding the distribution of types of pneumococci in health and disease offers a new incentive to further efforts in this direction. The evidence now points to an origin of Type I and Type II pneumonia by direct contact with patients with pneumonia or contact with healthy carriers harboring these organisms, and the healthy carriers are almost exclusively those intimately exposed. Such a limited distribution of these two types, which together compose 60 per cent. of the cases of lobar pneumonia, should make it possible to limit the spread of the disease by proper precautions. Concerning the control of infection with Types III and IV, which normally inhabit the mouths of healthy persons, the indications are less clear, but there is ground for the belief that the passage of an organism through a susceptible host increases its virulence and capacity for invasion of the tissues, and thus the transfer of virulent pneumococci of whatever type from patients ill with pneumonia to those about them doubtless favors the development of the disease. In view of the importance of the subject, therefore, the precautions are outlined with some detail.

Transfer of pneumococci may take place by direct contact with moist sputum or utensils used by infected persons, by droplet infection through the inhalation of particles of moist sputum expelled by talking, coughing or sneezing, or by the inhalation of air contaminated by infected dust. Isolation of patients with pneumonia will serve to limit the danger of contact, droplet and dust infection. Those in attendance should see that the sputum is expectorated into a special receptacle, later to be burned. The common practice of allowing patients to expectorate into a piece of gauze, which is tucked under the pillow or the sheets, is dangerous, as it favors drying of the sputum and wide distribution of pneumococci in the air of the room. Some soiling of the clothing is unavoidable with very ill patients, but such soiled material should be immediately removed, handled without shaking and sterilized by boiling. Expectoration on floor or furniture should be at once removed and the moisture remaining sterilized with disinfecting solution. Eating utensils and thermometer should be kept separate and sterilized. Dry sweeping of the sick room should not be permitted. The room vacated by a pneumonia patient should be thoroughly cleaned with soap and water. An abundance of sunlight limits the danger of the persistence of living pneumococci in the room. These suggestions apply to the care of the sick room,

It is desirable that the public be educated concerning the method of transfer of organisms giving rise to respiratory infection and the prevention of droplet, contact and dust infection. The organisms concerned are distributed from the mouth or nose of one person to another, chiefly by spraying during coughing or sneezing without covering the mouth with the handkerchief, by contact with contaminated dishes or drinking cups, and by promiscuous spitting. Board of health regulations against expectoration in public places should be more strictly enforced. Soiled handkerchiefs should not be shaken. The leaves of books and public documents should not be turned by moistening the finger in the mouth. The appeal may be made on the ground that certain of these practices are bad manners as well as dangerous to public health.

To a considerable extent, however, the transfer of infectious material from one person to another is unavoidable in the conditions under which we live within doors. There can be no doubt, however, that overcrowding greatly increases the danger. In the army a factor of great importance was the increased opportunity for contagion in the close contact of susceptible persons in barracks, tents and the mess. Though unavoidable in the face of a national emergency, crowding to the extent obtaining in the army was a serious menace and responsible for the loss of many lives. Thorough cleaning and airing of the barracks, head to foot sleeping, screening by the cubicle system, and separation by screens at mess will to some extent diminish the danger. Overcrowding in civil is more dangerous than in military life, since it more constantly operates to increase the transmission of virulent types of organisms, and hence there should be a persistent effort toward an improvement of housing conditions, especially in the cities. The influence of dust in the spread of respiratory infections should be combatted by diminishing the amount of city dust and smoke. In the presence in any community of a menacing prevalence of respiratory infection, mass meetings should be forbidden, schools should be closed, and no infected boats should land passengers at uninfected ports. The predisposition to pneumonia in a lowered resistance from insufficient food, exposure, overwork and fatigue should be opposed by greater attention to proper feeding, sufficient clothing, and a suitable balancing of activity and rest. For the individual himself there are certain precautions which should be taken, as rest in bed in the presence of an acute simple upper tract infection such as accompanies a "cold," influenza, tonsillitis, etc., while there is fever, and the avoidance of chilling of the body, exposure to draughts when insufficiently clad and rapid cooling when overheated, especially during convalescence from such infection and while the cough and expectoration still persist. The danger of inhaling infectious material is lessened by breathing pure air free from dust, keeping children indoors on windy or dusty days, and careful cleaning of the mouth and teeth during the fevers and preceding any operative procedure under a general anesthetic. Certain precautions against the development of post-operative pneumonia have already been discussed.

These suggestions are directed toward limiting the amount of respiratory infection, and especially the transfer and maintenance of the more virulent types of pneumococci, but it is too much to expect that by these means pneumonia can be eliminated. Some diminution of the incidence of the disease is likely to follow the adoption of these measures. So long as the close contact of individuals is maintained under present living conditions, however, it is fair to assume that such pneumococci as Types III and IV will continue to inhabit the normal mouth, ready when the occasion offers to give rise to pneumonia. Preventive measures must therefore go further than this and strike more nearly at the root of the pneumonia problems, and this brings us to the first of the two methods of attack with promise for the future.

Measles, whooping cough, influenza and diphtheria are important predisposing causes of pneumonia, usually of the bronchopneumonia type. To eliminate pneumonia secondary to these diseases, the diseases themselves must be controlled. While early detection and more adequate isolation will diminish the frequency of measles, whooping cough and influenza, the discovery of the causative agent and a better understanding of the mode of transmission are necessary to complete success. Through the brilliant researches of the past few years diphtheria is to be regarded as an entirely preventable disease and to have it in a community will be a reproach to the resident medical profession. In Massachusetts, during 1919, about eight thousand cases of diphtheria were reported, with nearly six hundred deaths. Such a record as this should never be possible again. Not all persons are susceptible to diphtheria. The Shick test is a simple, safe and reliable means of determining a lack of immunity, and the susceptible can then be made insusceptible by the injection of a diphtheria toxin-antitoxin mixture. In Massachusetts the State Department of Health furnishes to physicians the materials for testing susceptibility and for immunization against the disease.

The pneumonia problem will still remain in considerable measure unsolved unless preventive measures can be carried still further. We still have far to go before success is as near at hand as is the control of diphtheria, but there is one other hopeful prospect of success and that is the use of preventive inoculation against the disease. The practical elimination of typhoid fever and smallpox, as a result of preventive inoculation, has naturally led to a trial of preventive inoculation against pneumonia, and it was hoped that the advances in the knowledge of the types of pneumococci would prove an important factor in success. In animals a considerable degree of immunity to virulent pneumococci can be obtained by injection with dead pneumococci of any type, but for the production of the highest grade of resistance in animals the inoculation must be made with living cultures.

The first attempt at preventine inoculation against pneumonia in man on a large scale was made by Wright among the miners in South Africa, and the results obtained at the Premier Mine in 1913 were promising. The death rate among seventeen thousand inoculated was six per thousand in contrast to a death rate of seventeen per thousand among six thousand, seven hundred uninoculated. This experiment was undertaken before the importance of types of pneumococci was recognized. Using vaccine containing types of pneumococci prevailing among the miners, Lister later found during nine months of observation no cases of pneumonia due to the type of organism against which the men had been vaccinated. During the World War, Cecil and Austin at Camp Upton, and Cecil and Vaughan at Camp Wheeler, using vaccines containing Types I, II and III, obtained encouraging though inconclusive results. Experimental work by Cecil and Blake on monkeys carries the investigation a step further. The inoculation of monkeys with dead pneumococci failed to protect them from experimental pneumonia though it lessened the mortality. To protect monkeys from experimental pneumonia it was necessary to inoculate them, not with dead but with living pneumococci. The matter is still in the experimental stage, and thus far there is not sufficient evidence to warrant the general adoption of preventive inoculation against pneumonia.

It is unnecessary to go into detail regarding the routine treatment of pneumonia. Concerning general measures, it is important to conserve the strength of the patient in every possible way, to favor the elimination of toxic material by an abundant intake of fluids and to guard against abdominal distention. At present there is no specific drug therapy, but morphine is of great value in reliev-

ing the stitch in the side which may otherwise harass and fatigue the patient, prevent sleep, and aggravate shortness of breath. Digitalis may be of benefit where there is auricular fibrillation, and inasmuch as auricular fibrillation is an occasional complication the routine use of digitalis is desirable. This type of irregularity is estimated by Cole to occur in from three to five per cent. of all cases of pneumonia. The principle on which we use digitalis is that in appropriate doses it will do no harm and may be of great value if auricular fibrillation occurs. It is best, however, not to postpone its use until the necessity arises, but to give it as a routine early in the disease, in grain and one-half doses of digitan (digipuratum) four times a day for two to three days, and then stop or continue as the occasion demands. By this means the heart is brought under the influence of digitalis to some degree at least. We have entirely abandoned the use of alcohol in pneumonia except in cases of chronic alcoholism with pneumonia as a complication, during which the time does not seem opportune to discontinue its use. There is at present no specific drug therapy in pneumonia, but there is a hopeful prospect of success in further investigation in this direction. There is experimental evidence that a derivative of quinine, known as "optochin," discovered by Morgenroth, will protect animals against subsequent infection and cure an otherwise fatal pneumococcus infection. It cannot yet be recommended for man, however, as large enough doses to be effective are too dangerous to use. It is the first chemical substance known to kill bacteria in the living body and its discovery is an incentive to further research.

The use of vaccines in the treatment of pneumonia has been recommended and there are to-day many practitioners who employ them. Some confusion in the use of terms is common and not all know the difference between vaccine and serum therapy. A vaccine consists of dead or living cultures of bacteria. The only living vaccines commonly in use are the attenuated virus against rabies and the attenuated virus of smallpox. All other vaccines for use in man are suspensions of dead bacteria. There is one most important deduction which can be drawn from the use of vaccines up to the present time, both in animals and in man, and that is that they afford in varying degree some specific protection against subsequent infection with the organism against which the animal or man has been vaccinated. Thus the vaccination of rabbits, first with living and later with dead typhoid bacilli, protects the animal against many times the otherwise fatal dose of typhoid bacilli. Vaccination acts as a preventive by stimulating the production of an active immunity. There is thus far no reason to believe, however, in the presence of an existing and active infection that active immunity will be more rapidly induced by the injection of a few million dead organisms under the skin than by the response to the natural infection itself, and there is this undesirable feature that the powers of resistance may be taxed beyond their capacity to respond.

There is, however, one specific theraupeutic measure which is a direct outgrowth of laboratory studies of the pneumococcus and of immunologic experiments on animals. It has been known for many years that animals could be immunized against pneumococci and that the serum of such animals had the power of preventing and curing an otherwise fatal infection in other animals. As a result of such knowledge numerous unsuccessful attempts were made to cure pneumonia in man with the serum of immunized horses. The discovery of the fixed types of pneumococci and of the specific protective and curative action of the homologous serum served to explain previous failures and opened the way for a further trial of serum treatment with much better chance of success. For the application of these discoveries to the treatment of pneumonia in man and the development of methods we are indebted to Dr. Rufus Cole and his associates at the Hospital of the Rockefeller Institute. The method is by the use of immune horse serum. The immunity of the horse is the result of injection of the animal, first with dead and later with increasing doses of living pneumococci. It has been found unfortunately that a sufficiently potent horse serum for treatment of pneumonia can be obtained only by the injection of Type I pneumococcus and hence this serum treatment is applicable only to Type I pneumococcus pneumonia in man.

Before accepting any new method of treatment we should critically examine the evidence in its favor and become thoroughly familiar with its difficulties and possible dangers. Let me first present the evidence in favor of this method. There is usually a striking improvement in the general condition of the patients treated with the serum. The temperature often falls following the administration of serum and does not again reach its previous level, although in most cases the course of the disease is not shortened and lysis or crisis occurs at the usual time. The pulse rate is lower. The cyanosis is less marked and mental condition is improved. These effects cannot be offered as more definite evidence than an impression of a favorable action of the serum, and in general serum-treated cases seem to run a milder course on comparison with patients not so treated. A second result is that the area of lung involvement does

not continue to spread or extends more slowly than without serum treatment. It is difficult to make of this more than a favorable impression of restriction of the area of involvement following serum treatment. More definite evidence is afforded by the taking of blood cultures before and after the administration of serum, following which the cultures previously positive usually become negative. The septicemia of the disease, therefore, seems to be checked by the serum. A reduction of mortality is the most significant result of serum therapy, and on this evidence the judgment concerning the efficiency of the serum must in large measure be based. There is evidence of a reduction in mortality. The mortality of Type I pneumonia in man is about one-third of the cases (column E). In contrast to this is a series of four hundred and ninety-five cases of Type I pneumonia collected by Cole, including one hundred and ninety-five treated at the Hospital of the Rockefeller Institute, with a total mortality of 10.5 per cent. (column F). These statistics also go far toward proving the efficiency of the serum for the treatment of pneumonia in man. The reported mortality of about one-third in untreated cases, however, cannot be regarded as a perfect control against the mortality of one-tenth of the cases in the treated group, because the two groups are not contemporaneous and there is a certain element of risk in comparing the mortality of the treated group with that of an antecedent group in which variation of virulence of organisms and of resistance of the host cannot be estimated. The number of cases in the two series, however, may in considerable degree be regarded as balancing any possible error from this source.

In undertaking serum therapy it is desirable to appreciate the supreme importance of the earliest possible administration of serum, and this applies not only to the serum treatment of pneumonia, but to any disease for which this form of treatment is available. During the course of infection certain substances are formed within the body which neutralize the curative element in the specific serum, and these neutralizing substances are formed in larger and larger amount as the infection proceeds. It is important, also, that only a reliable serum be used, and in Massachusetts, Type I serum, manufactured by the State Board of Health, is available without charge for citizens of the state. In New York, Type I serum is made by the State and City Boards of Health. It is quite generally conceded that it is undesirable to give Type I serum to all patients with pneumonia irrespective of type. Only about one-third of all patients with pneumonia are found to have Type I pneumococcus infection, and certain reactions following the use of serum make it unwise unnecessarily to subject the remaining two-thirds to these reactions, it being understood that patients with other than Type I pneumococcus pneumonia will receive no benefit whatever from the administration of Type I serum. Intravenous therapy is not attempted in young children, owing to the small size of the veins and the difficulty of administration.

There are certain precautions which should be exercised in the administration of alien serum to man, and they apply not only to the specific treatment of Type I pneumonia, but also to the use of horse serum for such diseases as diphtheria, meningitis due to the meningococcus and tetanus. Intravenous injections of large amounts of serum are more likely to be followed by troublesome reactions in susceptible individuals and hence special caution should be exercised in the serum treatment of pneumonia. The reactions following the injection of alien serum have nothing to do with the curative action of the serum, but occur from the entrance directly into the body of protein substances common to the horse but foreign to man. The occurrence of these reactions is unfortunate and makes it desirable that methods be devised to separate the protective bodies · in the serum from the serum itself. Only a small proportion of patients are sensitive to horse serum, however, and sensitiveness is easily recognized by certain simple procedures. In the first place, patients who have had asthma or hay fever, or who have previously been given an injection of horse serum for any purpose such as for the prevention or treatment of diphtheria or tetanus, for the treatment of meningitis or for a previous attack of pneumonia, are particularly likely to be sensitive, and an inquiry should always be made regarding these matters. An affirmative reply indicates that special precautions should be exercised in the use of horse serum. It should be remembered, also, in this connection that patients originally insensitive who have been treated with serum become sensitive after the lapse of about ten days following the last injection. Without regard to the response to these questions, however, all patients who are to be treated with serum should be tested for sensitiveness by the intradermal test, performed by the injection into and not under the skin of 0.02 cc. of sterile normal or immune horse serum diluted one to ten with normal saline solution. At the same time a control injection with an equal amount of normal saline alone is similarly made into another part of the skin and the two sites of injection observed. If the individual is sensitive to horse serum, an urticarial wheal surrounded by a zone of erythema appears, usually within about five minutes, and slowly increasing in size may reach

that of a half dollar within an hour, then slowly subsides. The control injection of salt solution fails to show any such local reaction. A negative test with serum does not absolutely exclude sensitiveness to serum, but makes it highly improbable. A still further precaution must therefore be taken to desensitize all patients before proceeding with the injection. Desensitization is accomplished by the subcutaneous injection of 0.5 to 1.0 cc. of normal or immune horse serum. Experiments indicate that the slow absorption of this small amount of serum will enable even highly sensitive animals to tolerate large amounts without trouble and the initial intravenous dose of serum may be given a few hours afterward to patients who have no history of hay fever, asthma, or a previous injection of horse serum, and with negative skin tests. It is important to remember in treating pneumonia with serum, if more than a week has elapsed since the last injection of serum, that the patient may have become sensitive and extreme caution must be used in giving further injections.

For the intravenous administration a vein at the bend of the elbow is usually selected. The technic may be similar to that used in the administration of salvarsan. A three-way stopcock with attached rubber tubing, connecting with the needle within the vein, with a Luer syringe, and with a bottle containing the serum, is the most satisfactory method. The serum should be kept warm during the administration by immersion of the bottle in warm water. Fifteen minutes should be occupied in giving the first fifteen cc. of the first injection to guard against an anaphylactic reaction, which is likely to occur at once if it is to develop at all. Following the slow administration of the first fifteen cc., the remainder may be given more rapidly, about a half hour usually being necessary for the completion of the injection of the 100 cc. of serum. Subsequent injections of an equal amount are usually given at eight-hour intervals when the temperature is 102 or higher.

If such precautions as have been described are observed, there should be no unfavorable symptoms following serum therapy. By a slow process of very gradually increasing subcutaneous and intravenous injections, serum can be given to patients known to be sensitive.

There are three types of reactions which may follow serum therapy. The most important and dangerous is anaphylactic shock, occurring only in sensitive individuals and avoidable by the precautions already mentioned. The symptoms develop at once or within a few minutes of the injection and resemble an asthmatic attack,

with cyanosis, rapidity and weakness of the pulse, and a general urticarial eruption. The attack may be fatal. Atropine sulphate, 1-120 grain, and adrenaline chloride, ten minims of the 1:1000 solution, subcutaneously will usually give relief. A second consequence of serum therapy is a thermal reaction, with rapid elevation of temperature, usually within an hour of the injection, accompanied by chill or chilliness, some dyspnea, cyanosis and elevated pulse. The attack is usually over within an hour. The elevation of temperature is followed by a fall frequently to below the previous level. Though disturbing to the patient, the thermal reaction is not dangerous. A third reaction is serum disease, observed in varying degrees of severity in about one-half the serum treated cases, beginning one week or later following the last serum injection and persisting for a number of days, a week, or more. The manifestations are elevated temperature, urticaria, cedema of the skin, stiff and painful joints, and enlargement of the glands and spleen. Serum sickness is troublesome, but not dangerous. Soothing skin washes and subcutaneous injection of adrenaline chloride afford some relicf.

There are two complications of pneumonia which deserve further brief consideration. Pleural effusion is common. It is not enough to know that fluid is present. Its character must also be determined. Aspirated fluid may be clear or cloudy. Microscopic examination should be made to determine the presence and kind of bacteria and cellular elements. Cultures on blood agar will serve further to identify the bacteria. Precipitin tests with the three fixed types of antipneumococcus serum will identify the type of pneumococcus infection. It is desirable that tubercle bacilli be sought in the sediment of the fluid. It is of practical importance to investigate pleural effusions more carefully than is the usual custom. Pleural effusions complicating pneumonia vary from clear or slightly cloudy, serofibrinous to frankly purulent exudates. Small amounts of clear fluid usually contain no bacteria by microscopic examination, give no growth on culture media, and the cells are prevailingly lymphocytes and endothelial cells. Such fluids require no special treatment. Turbid fluids usually contain pneumococci and an excess of polynuclear cells, and eventually demand drainage of the pleural sac for relief. For frankly purulent fluid containing pneumococci immediate evacuation is desirable. In rare instances purulent fluids are sterile on culture media. Such fluids may be of pneumococcus origin, the pneumococci having died out, or of tuberculous origin. Simple aspiration repeated as necessary is the procedure of choice. While immediate evacuation is desirable for

purulent fluid containing pneumococci, something may be said of the method to be used. In patients seriously ill with pneumonia complicated by empyema, it is best repeatedly to aspirate or use catheter drainage under air-tight precautions than to proceed at once to so radical a measure as costatectomy and open drainage. The simpler procedure avoids the danger of collapse of the lung while the pleural adhesions are fresh and easily ruptured, and spares the patient the shock of operative trauma during the more active stages of the pneumonic process. We have used this more conservative method in the treatment of empyema for the past seven or eight years with more satisfactory results than in the preceding period when there was an immediate resort to radical operation.

Another and much less common complication is pulmonary abscess. The pneumonia which precedes or accompanies the breaking down of the pulmonary tissue may be obvious or latent. An upset of the balance between ferment and antiferment in the pneumonic lung, such that there is too much ferment or too little antiferment or both, may be regarded as the chemical factor underlying abscess formation. Too great an impairment of the blood supply to the affected region is probably concerned in diminishing the amount of antiferment. There is, however, another and more immediately practical consideration regarding the etiology of abscess, and that is that in the last one hundred cases under our observation onequarter followed some surgical procedure under general anesthesia upon the upper parts of the respiratory tract, and it is fair to assume that the inhalation of infected blood or other material during or after the operation was responsible for an aspiration pneumonia which later devoloped into abscess. Thrombosis about the site of the operative field with resulting septic pulmonary emboli seems a less plausible explanation. Such an unfortunate seguel to operation as pulmonary abscess is not always preventable, but great caution should always be observed not to operate in other than emergency cases on patients with acute infections of the upper respiratory tract and to avoid by every possible means the aspiration into the lower parts of the tract of material foreign to these regions. Pulmonary abscess is not always easy to recognize. Even when its presence is established it is not infrequently difficult to localize exactly, and these difficulties out of the way there is the oftentimes perplexing problem of the appropriate treatment.

There are five cardinal indications of abscess. The first is foul breath or foul sputum or both. Foul breath is more common than foul sputum, as the expectorated material may come only infrequently or not at all from the abscess if this communicates imperfectly with the bronchi. The foul breath may be noticeable only at the end of a paroxysm of cough. In some cases there is only a bad taste in the mouth. The sudden and explosive expectoration of a large amount of pus is distinctive of abscess formation either in the pleura or lung. It is not common in either pulmonary abscess or empyema and was noted in only about 10 per cent. of our cases. The finding in the expectoration of elastic tissue with an alveolar arrangement establishes the presence of pulmonary abscess, and the absence of tubercle bacilli in the same specimen goes far toward the exclusion of tuberculosis as a cause of the process. Regarding physical signs, it is important to remember that there may be none, and that when present dullness alone is the most common single sign. The physical signs of cavity are not to be expected in more than a small proportion of cases. Such signs were present in about 18 per cent. of our series. X-ray examination is of great assistance in more exact localization and the selection of cases suitable for operation. Radioscopic examination should be made both in the upright and the prone positions and in doubtful cases before and after evacuation by cough. The most characteristic appearance is a dense "doughnut" shadow enclosing a less dense area, in the dependent part of which a fluid level can be seen, but the X-ray appearances are variable and cannot be fully described here. One most important matter, however, is the assistance in judging operability from the appearance in the X-ray plate. A pulmonary involvement which appears as a dense, circumscribed area with central cavity formation may be favorable for operation, but a mottled, uneven increase of density offers an unfavorable prospect of surgical relief. Exploratory puncture of the thorax as a means of diagnosis should be condemned as unnecessary and dangerous. The diagnosis can be made without it, and the insertion of a sharp-pointed instrument into a cavity may result in the injury of blood vessels lining its wall or traversing its lumen, with uncontrollable and fatal hemorrhage as a result. Exploratory puncture of the pulmonary tissue with a small needle through the field of operation may, however, be necessary to locate the abscess.

The estimated mortality in pulmonary abscess treated without surgery is about seventy five deaths out of one hundred cases. It may be further estimated that of the remaining twenty-five cases eighteen will be harassed by cough and the expectoration of purulent material for the remainder of life, and constantly menaced by the danger of extension of the septic process, while a small and for-

tunate group of seven will spontaneously and completely recover. In our experience spontaneous recovery occurs only in relatively mild cases of short previous duration. The outlook with surgery is better than this. Complete relief was secured in 16 per cent. of our cases and improvement in 22 per cent. more.

The duration and severity in large measure govern the indication for operation. Mild cases of short previous duration without abundant and very offensive sputum, and with relatively mild sepsis, may be kept for a time under observation in the hope that spontaneous recovery may occur. On the other hand, an immediate resort to operation is desirable in the presence of abundant, foul sputum and marked sepsis, provided the abscess is of the operable type.

INCIDENCE OF TYPES OF PNEUMOCOCCI IN THE NORMAL MOUTH AND IN THE SPUTUM OF BRONCHO AND LOBAR PNEUMONIA.

A Types of Pneumococci.	B Incidence in Normal Mouth.*	C Incidence in Broncho- pneu- monia.	D Incidence in 100 Cases of Lobar Pneumonia.	Usual Outcome Approximate No. of Deaths in Each of the Preceding Groups.	F 495 Cases of Lobar Pneumonia Treated with Type I Serum. ### Deaths.†
I	0.8%	+	30	10 (33 1-3%)	10.5%
II	0.0%	+	30	10 (33 1-3%)	
II Atypical	18.2%	++			
III	28.1%	+++	15	7 (50%)	
IV	52.9%	++++	25	3 (12%)	

^{*} Avery, Chickering, Cole and Dochez. Acute lobar pneumonia. Prevention and serum treatment. Monographs of the Rockefeller Institute for Medical Research, No. 7, October 16, 1917.

[†] Cole, Nelson Loose-Leaf Medicine.

County News and Notes.

FRANKLIN.

FRANKLIN COUNTY MEDICAL SOCIETY.

The Franklin County Medical Society held its annual meeting in Farmington, Oct. 27, 1921.

In the afternoon a business meeting was held and the following officers for 1922 were elected.

President-E. C. Higgins, Phillips.

Vice-President-G. H. Coburn, Rangeley.

Secretary and Treasurer-G. L. Pratt, Farmington.

Delegate to Maine Medical Association-W. J. Trefethen, Wilton.

Censor for Three Years-A. E. Floyd, New Sharon.

In the evening thirty-eight members and guests sat down to dinner at the Exchange Hotel. After dinner, Dr. P. E. Hardy, of Waterville, spoke on medical defense, Dr. E. H. Risley, of Waterville, on the work of the Cancer Committee, Dr. E. V. Call, of Lewiston, on the general work of the association, and Dr. John Sturgis, of Auburn, read an interesting paper on "Some Surgical Conditions of the Liver and Gall Bladder."

GEORGE L. PRATT, Secretary.

NEW AND NON-OFFICIAL REMEDIES.

During November the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

G. W. Carnrick Co.:

Amylzyme Capsules.

Merck & Co.:

Bromipin 10 per cent.

Iodipin 10 per cent. Tablets.

Powers-Weightman-Rosengarten Co.:

Theobromine-P. W. R.

Schering & Glatz:

Xeroform-S. and G.

E. R. Squibb & Sons:

Diphtheria Immunity Test (Schick Test)—Squibb. Diphtheria Toxin-Antitoxin Mixture—Squibb.

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The 1920 Record

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in 1920

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in 1920

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in 1920

Total returned to members and saved for future protection

\$192,863.00

in 1920

Expense of operation less than

\$2.30

per member in 1920

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\$3.00

membership fee will now carry either policy until Mar. 10 1922.

PHYSICIANS CASUALTY ASSOCIATION PHYSICIANS HEALTH ASSOCIATION 304-12 City National Bldg., Omaha, Neb.

Physiotherapy

The remarkable results secured in the treatment of our wounded soldiers by the various physiotherapy methods used in the U. S. Reconstruction Hospitals have attracted national attention. The value of physiotherapy has been so clearly demonstrated that the U. S. Government has equipped many of the U. S. Public Health Service Hospitals with apparatus for use in physiotherapy.

Leading physicians now realize that physiotherapy can be of great assistance to them in their general practice. It has shown its value particularly in a large number of chronic conditions, and also in the treatment of occupational injuries received by mill workers and artisans of various kinds.

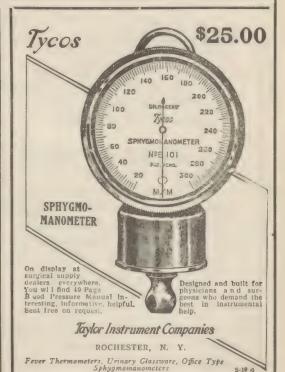
The Thompson-Plaster Electrical Cabinets supply many of the modalities used in physiotherapy. Write for our booklet "Electrotherapy in the Abstract," which explains the value of these modalities and gives the technique for their application.

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OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association.

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Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

Voi. XII.

JANUARY, 1922.

No. 6

*SOME LARGE URETERAL CALCULI.

By LUTHER G. PAUL, M. D., Boston.

Ureteral calculi are formed in the kidney and drop or are forced into the ureter. They may pass through the ureter into the bladder with more or less delay, or may become impacted in the ureter. "There are three points of constriction in the ureter, one about two inches below the renal pelvis, another at the pelvic brim, and a third about one-half inch from the bladder orifice of the ureter. A small stone may completely block the ureter. A large stone may fail to block it, because the ureter dilates above the stone, the stone acts as a ball valve, and the urine trickles by." The stones are usually of small size, from a sixteenth to a quarter of an inch in diameter, but not infrequently larger ones are met with.

The typical symptoms are pain in the flank, radiating toward the groin, pain in the testicle on the affected side, frequent urination, occasionally rectal tenesmus. There may be tenderness over the point of impaction. A chill and a moderate rise in temperature are not unusual, and there may occasionally be noticed spasm of the lateral abdominal muscles. Not infrequently the attack is accompanied by vomiting, but sometimes the vomiting is due to the morphia, which has been given to relieve the pain. When the attack is right sided and there is localized spasm and tenderness, it may be difficult to rule out acute appendicitis. A urinary examination, a white count, and an X-ray would

^{*} Read before the Maine Medical Association, June 28, 1921.

determine the diagnosis, but these tests are not always available, and they require time which cannot well be spared if the case turns out to be appendicitis. It occasionally happens that a patient suffering with ureteral colic has an inoffensive appendix removed. A positive X-ray film will in most cases show the correct diagnosis, while a negative is not wholly reliable. A uric acid stone will not cast a shadow unless mixed with a sufficient amount of calcium salts. Phleboliths and calcareous glands may be mistaken for calculi unless the picture is taken with a catheter in the ureter. A complete obstruction of the ureter will cause hydronephrosis in a short while, and a tender mass may be felt in the flank. A fairly large stone in the lower end of the ureter may be felt through the vagina or rectum. In the case which I shall report to you, the stones could be felt through the abdominal wall.

Occasionally we see cases in which the early symptoms point to bladder or prostate rather than to the ureter. A few years ago a man was referred to me with the diagnosis of a probable papilloma of the bladder. His story was, that after two rather strenuous sets of tennis he urinated and found that his urine was decidedly bloody. This condition continued for the next two or three urinations and then disappeared. It reappeared a few days later after more tennis. There was no pain at any time. The cystoscope showed that there was no growth in the bladder. In the course of the next few days he had a typical attack of ureteral colic, and in a short while passed a small stone from the urethra.

Another man, forty years of age, complained of frequent urination, with pain and tenesmus at the end of the act. He was obliged to urinate about every two hours during the day, and four or five times at night. The prostate was neither enlarged nor tender, and the urine was normal except for a rather high acidity. This condition lasted for nearly a week, and then he was taken with a severe attack of ureteral colic. The urine was watched for a stone but none found. A year later he had another attack of colic, and passed a small stone. It should not be forgotten that irritation of the renal pelvis and ureter will cause frequent and painful urination.

The treatment of this condition varies with the size and amount of impaction of the stone. A small stone which is moving slowly down the ureter will be passed after one or two attacks of colic. The passage of a small stone can be hastened, and sometimes a stone which has become impacted can be started on its course by injecting a few cubic centimeters of sterile oil into the ureter through a ureteral catheter. These patients should be instructed to drink large amounts of water, and potassium bicarbonate in half teaspoonful doses, well dissolved in

a glass of water, will be found of great benefit in the cases where the crystalline element is largely uric acid. The pain, which is most severe, can be controlled with morphia, and the addition of atropin will relieve the spasm. Dilatation of the ureter with a bougie may be successful, and a stone at the ureteral orifice may be grasped with forceps through a cystoscope. The opening of the ureter has been slit in order to facilitate the passage of a stone.

A stone impacted in the ureter is a serious danger, but they have remained in the ureter many years without causing serious damage. In these cases the ureter has not been completely blocked, and the urine has continued to pass by the stone. When the ureter is completely blocked, the kidney may be rapidly destroyed. "A retained stone will in time cause serious trouble. The retained stone increases in size and will cause thickening or ulceration of the ureter, dilatation of the ureter, and kidney trouble. A stone which is undoubtedly too large to pass into the bladder, or one which, after such treatment as I have outlined, does not show progress through the ureter, should be removed by operation.

The ureter can be exposed through the peritoneum or without opening the peritoneal cavity. I prefer the extra-peritoneal route, as by this method one gets an excellent exposure of the ureter and does not run the risk of infecting the peritoneum. If the stone is impacted in the upper half or two-thirds of the ureter, an incision should be made from the twelfth rib to just in front of the anterior superior spine of the ilium, then turning parallel to Poupart's ligament to about its middle. The incision is carried down to the peritoneum, in front of the lumbar muscles, and the peritoneum is stripped off the abdominal wall until the ureter is exposed. The fact that the ureter receives its blood supply from the peritoneum causes it to adhere to the peritoneum and come up with it when the peritoneum is lifted up. It is not, as a rule, difficult to recognize the ureter, but when it is not readily seen, pressure upward on the pelvis of the kidney will put the ureter on the stretch and cause it to be more easily seen. For the lower half or third of the ureter, Gibson's incision gives an excellent exposure. The skin incision runs from the mid-line about one-half inch above the pubes, horizontally outward parallel to Poupart's, and about the middle curves upward to a point opposite the anterior superior spine of the ilium. The incision is carried through the aponeurosis of the external and internal oblique muscles, and it may be necessary to cut a few fibres of the internal oblique, most of the incision running about parallel to its fibres. The external border of the rectus muscle is identified, and the fascia of the transversalis is divided by a vertical incision close to and parallel to the rectus. The rectus is retracted toward the median line, and the transversalis retracted outward. This exposes the peritoneum, which can now be easily stripped from the pelvic wall, and an ample view of the ureter obtained. The stone can be felt within the ureter, and removed through a longitudinal incision. A soft bougie should be passed into the bladder to insure drainage. The wound in the ureter will close without being sutured, but it has been my practice to close it with interrupted sutures of number zero chromic catgut. Silk can be used, but should there happen to be any infection, it is likely to become infected and so have to be removed later. By suturing the wound in the ureter, a better approximation of the edges is obtained, and there will be less chance of a stricture. A small cigarette drain should be placed down to the opening in the ureter, and the abdominal wound closed in layers about the drain. The drain is removed gradually, starting with the fourth day, and should be all out by the end of a week. There may be a little leakage after removal of the drain, but this does not usually persist for many days.

The case which I wish to report to you is that of Mr. C., referred by Dr. J. H. Libby, of East Weymouth, Mass., in July, 1917. With the exception of a urethritis in his youth, his health had been good. Seven vears before I saw him he had an attack of "gravel", from which he made a good recovery on medical treatment. For the last four years he has had treatment with sounds for a urethral stricture. Six weeks before coming to me he was taken with pain in his left flank, and ran a temperature of 102 to 104. This subsided in a few days, but was followed in three weeks by a similar attack, which lasted a week, subsided for a few days, and then recurred. For the last ten days he had been having more or less pain in his left flank, and running a temperature of 101 to 103. When I first saw him he complained of severe pain in his left flank which radiated toward the left groin. His temperature was 103 and his pulse 100. No mass could be felt in his flank, nor was there much of any tenderness there. In the left inguinal region there was felt an elongated mass, not especially tender, which was thought might be fecal. The urine showed a trace of albumin, numerous casts, a few renal cells and considerable blood. A diagnosis of calculus in kidney or ureter was made, and he was given fifteen grains of hexamethylenamine every four hours, and large amounts of water. In three days his symptoms had subsided, and he was sent for an examination with the X-ray. This showed two stones in the lower portion of the left ureter, a small stone superimposed on a larger one. On July 24, 1917, he was etherized, and the left ureter exposed by the Gibson extra-peritoneal incision. The ureter was fully an inch in diameter, and the wall was much thickened. The stones could be felt within the ureter. On opening the ureter, foul-smelling pus appeared, and the wall of the ureter was so friable that it tore easily when the stones were being taken out. A number 18 (French) soft bougie was passed into the bladder, the opening in the ureter closed loosely with catgut, and a cigarette drain placed down to the ureteral wound. The abdominal wound was closed in layers about the drain. There was considerable blood in his urine for several days, and there was moderate staining of the dressings. The drain was started on the fourth day and was omitted after a week. There was a slight leakage from the wound for a few days, but this had stopped before the end of the second week. The convalescence was uneventful, and at the end of two weeks the urine report was as follows: Specific gravity 1020, no albumin, no sugar. slight sediment, few leucocytes, few small round cells, some squamous cells, no blood. The larger stone weighs 259 grains and the smaller 96 grains. The larger stone is 7 centimeters long and 2 centimeters in diameter at its largest part; the smaller one measures 4½ by 1½ centimeters.

DISCUSSION.

Dr. Jackson: Doctor Paul has told us of the liability of ureteral calculi to mimic appendicitis and of the useless removal of the appendix in such cases. There is a very serious mimicry of another serious condition—I have seen several of them—occurring in the passage of ureteral calculi and that is an acute intestinal obstruction. These cases give the appearance of being very severe. The abdomen will become very much distended, no gas or feces will be passed, and the case will present a great many points that will make one fearful that the abdomen must be opened. Of course to open an abdomen in the face of an advnamic ileus will do no good. I recall seeing one case where the man's abdomen was very much distended. Everybody connected with the case was very much disturbed over the possibilities. In giving the history of his case the patient described the typical pain that Doctor Paul has mentioned, that is, the pain started in the region of the left kidney, running downward through the groin, following the course of the ureter, and out through the end of the penis. He described this quite characteristically, and an examination of his urine showed that he was undoubtedly suffering from an inflammation of the left kidney and ureter due to the passage of small calculi. There is no doubt but that the man who relies simply upon his X-ray shadow, without having a ureteral bougie passed to the kidney, will often make a mistake, as the doctor has shown.

A little point that I received a number of years ago from Doctor A. J. Ochsner, in which he was speaking about kidney and ureteral calculi of the smaller type, may be of service. Of course it is useless to operate upon these small calculi. The important thing to consider is what we can do to prevent the formation of them. Doctor Ochsner told me that a great many years ago he was consulted by a prominent manufacturer of carriages in one of the Illinois towns, who told him that by drinking distilled water he had been absolutely free for a long time of the trouble caused by the passing of this so-called gravel. I have tried this simple remedy in several cases, and I can assure you that it will afford quite some relief. The use of the water must be constant and it must be distilled water. The remedy is simple, the trouble sometimes quite severe.

I would like to ask Doctor Paul this question. In the case in which he removed the large stone he mentioned the fact of a great amount of disturbance in the ureteral wall. Such often happens in the case of an impacted stone and has occurred when the ureter has been inadvertently tied off. Did he afterwards have an opportunity of passing a catheter to the left kidney, and, if so, was the ureter perfectly patent? It seems to me that there must have been a large amount of scar tissue form from the reaction of a stone that had been there, as the Doctor says, some four or five years, which would, of course result in quite some inflammation. As I understood him, he did not suture the ureter.

DOCTOR PAUL: I did suture it.

DOCTOR JACKSON: Of course, where a large stone has been impacted as long as that, there must be liability of quite an amount of scar tissue.

THE PRESIDENT: Is there any further discussion? Does Dr. Robinson, of Bangor, care to discuss this paper?

Dr. Robinson: I have nothing to offer, Mr. President.

THE PRESIDENT: Then I will call upon Dr. Paul.

Dr. Paul: In regard to what Dr. Jackson has just said as to whether that ureter was considerably disturbed, the wall was very much thickened—I should say probably it was a quarter of an inch thick, although perhaps not quite so much as that. It was very friable. I made the incision down over the stones and then I took the stones out. As I took them out, the stones tore the incision somewhat. By putting my finger very carefully into the ureter, I could feel it tip. The wall of the ureter was very friable, probably from chronic, or possibly acute, inflammation, because when we opened the ureter, out came this

flow of thick, yellow, foul-smelling pus, the same odor that you get from an appendix abscess; practically no urine.

As to whether there is any permanent injury to the ureter I cannot say, but the man was in my office within two or three months, and has had no further trouble. How much dilatation he has, I do not know; but he has had no symptoms since he left the hospital which could be referred to any permanent damage to the ureter.

Dr. Jackson wanted to know if I passed the catheter up into the kidney since the operation. No catheter has been passed since he left the hospital, that I know of.

Now regarding this operation: It is not a difficult one, although it might seem to be rather a complicated affair, but the exposure of the peritoneum is very easily made for the lower part of the ureter. The skin incision runs from the mid-line about one-half inch above the pubes, horizontally outward parallel to Poupart's, and about the middle curves upward to a point opposite the anterior superior spine of the ilium. The incision is carried through the aponeurosis of the external and internal oblique muscles, and it may be necessary to cut a few fibres of the internal oblique, most of the incision running about parallel to its fibres. The external border of the rectus muscle is divided by a vertical incision close to and parallel to the rectus. The rectus is retracted toward the median line, and the transversalis retracted outward. This exposes the peritoneum from the pelvic wall, and an ample view of the ureter is obtained. If you go through the peritoneum it does no harm, although you want to be sure to tie it up right away; otherwise it may fill with pus, and, if you have a hole in the peritoneum, that will probably cause you trouble later. If you do make a hole in the peritoneum, sew it up with a little chromic catgut. I imagine the peritoneum is opened a good many times in these operations. I have seen it opened, and I presume others of you have. The peritoneum very readily pulls away from the abdominal wall, and you can slide your hand down and pick it right off. In the few cases I have done there have been no adhesions. In the first case I was rather timid about tearing the peritoneum away from the iliac vessels, but would simply lift it up. Where you have some fresh adhesions around an appendix, you insert your finger and slide it around and you can feel them give way in front of your finger; and the same way with this peritoneum. Just work your finger along and it works up very easily. In this case I am referring to one could not miss it, and the big stones could be felt inside. I call to mind another case of a woman who was between five and six months pregnant. This was a small stone and it was seven or eight years ago, before I knew about injecting oil up into the ureter

—before I had heard of it. I imagine that in her case an injection of oil might have released this stone, but I cut down on it. We had to make the lumbar incision, that is, the incision just in front of the lumbar muscle. She was a very stout woman, and in addition to that, as I say, was five or six months pregnant, so in order to get a good exposure of the ureter I had to cut some of the lumbar muscles. As for sewing up the ureter, cases have been left unsewn and have been all right. There must be good drainage in the bladder. Just slide a soft bougie, about a No. 18, down into the bladder to be sure you have an open end into the ureter. I think the matter of putting sutures in the ureteral incision is merely to get a good approximation of the cut edge. I can conceive how an incision, if it is of any length, might from some little pressure overlap instead of getting a good approximation.

Dr. Jackson spoke of the distention in some of these cases of ureteral calculi. I have seen them where you get an enormous front. It has occurred in cases I have seen in elderly men. I never have seen it in a woman or in a young patient, but in cases of men of fifty or more years of age—it is my experience that it occurs in that type of case rather than in younger men.

*DIARRHOEA IN BOTTLE-FED INFANTS.

By HAROLD E. SMALL, M. D., Fort Fairfield, Me.

According to the idea of Finkelstein and Meyer, the Digestibility of human and cow's milk by infants is not dependent upon simple quantitative differences of its constituents. They show by experiments that fermentation is not due to fat, as they had the same results with whole milk as with diluted skim milk or buttermilk. They also found that casein added to skim milk and to diluted whole milk which was being given to babies in which indigestion was present did not increase the condition, but apparently improved it, the loose, green stools changing to normal within a few days. These observers believe that there must first be an injury to the intestinal epithelium caused by abnormal bacteria fermentation before the food itself can be harmful. An infant can digest the food elements when in the whey of human milk easier than when they are in the whey of cow's milk. Any medium, except human milk, may interfere with the normal function of the in-

^{*} Read before the Aroostook County Medical Society.

testinal epithelium. The action of the whey of human milk and cow's milk seems to be different.

If their theory of diarrheea is correct, the first indication would be, as they advise, to stop fermentation and allow the intestine opportunity to return to normal. From these experiments they conclude that casein has an antifermentative action, also that fermentation is not due to fat. That sugar must therefore be the cause of fermentation is their conclusion: They found that when sugar was added to the food of infants in which diarrhoea has been controlled by the addition of casein, a recurrence of the diarrhoea occurred, also that when the sugar was reduced for a considerable time without casein being added, the diarrhœa was often controlled. Further evidence pointing to sugar as the cause of diarrhea is the fact that the same amount of proteids and fats diluted with water was better borne than when diluted with the sugar containing whey. They therefore concluded that a food suitable to prevent intestinal fermentation depends on a diminution of the sugar milk, a diminution of the salts by dilution of the whey and an increase in the casein content with a fair amount of fat. Based on these observations, they developed a food to meet these indications. The food is known as eiweiss-milch or casein feeding and is prepared as follows: One quart of milk is heated to 100°F., and two teaspoonfuls of essence of pepsin or liquid rennet added. This is allowed to stand fifteen or twenty minutes until jellied. The whey is then drained off and thrown away. The curds are then worked through a rather fine sieve two or three times and water added to make one pint. To this curd and water add one pint real buttermilk. The food has the following composition: fat, 2.5%; sugar, 1.5%; proteids, 3.0%; salts. 0.5%; one quart contains about 370 calories. In their original paper Finkelstein reports good results with this food, in many conditions accompanied by diarrhoa, but not in the newborn.

After preliminary cathartic, followed or not by a period of starvation and tea diet, depending on the case, this food is given for a few days—small quantities at first, then larger quantities until the stools are hard and dry, then a mixture is given without sugar. The sugar is added gradually as conditions admit, some sugar other than milk sugar or cane sugar being used, preferably dextrin and maltose. These infants of necessity lose weight in the beginning of the treatment, owing to the low caloric value of the food. This loss is followed by a stationary period, then by a gradual increase in weight as the calories are increased by adding more of the food and carbohydrates. Finkelstein adds buttermilk because it contains only a small amount of sugar or fat, also for the food effect of the lactic acid.

Dennet has made an arbitrary division of diarrhœas during the first year as follows: 1. faulty feeding; 2. insufficient feeding; 3. over feeding; 4. infectious diarrhœa.

As regards the sugar best suited for infants, Leopold believes that the maltose and dextrin preparations cause less dyspeptic stools and a rise of temperature less often than saccharose, glucose, lactose or maltose. His experiments also showed that more cases gained in weight when the maltose and dextrin preparations were used than with other sugars. These experiments were mostly with infants under three months of age.

In a great many cases a diarrhœa can be controlled by omitting the sugar from the feedings, while not infrequently diarrhœa will be caused by the sugar, and evidence of this is shown by the fact that many constipated infants are relieved of the condition by simply adding sugar to their diet.

All this tends to add weight to Finkelstein's view, that sugar is the cause of diarrhœas.

In many cases I have seen loose, green stools become yellow and well digested within a few days by giving a milk and water mixture, boiled without sugar, many of these cases not having the customary preliminary cathartic. As soon as the bowel condition is improved the boiling may be omitted and sugar cautiously added. In cases with a temperature of the infectious type, as cited above, I give a cathartic—calomel or castor oil, depending upon the individual case.

Case I.—Age 8 months, weight 17 lbs. This baby had been gaining weight for some time. She was taking modified milk, sugar about 6%. The mother increased the sugar (cane sugar) of her own initiative, which was soon followed by six or seven loose, green, watery movements daily. The sugar was withdrawn and the movements became normal within four days, when the sugar dextri-maltose was gradually added, one-half ounce to the twenty-four hours' feeding being given first. The loose stools did not recur.

Case II.—Age 5 months, weight 6½ lbs., birth weight 8 lbs. Nursed for three months, then put on a milk and water mixture without sugar. The value of the twenty-four hours' feeding was about 70 calories per kilo. When seen at four months of age the baby was emaciated, pale and anemic, crying much of the time. There were frequent small, green stools. This baby was given milk and water mixture boiled without sugar. The stools gradually improved within a few days to three or four. They were yellow, well digested, but quite dry. The boiling was omitted, modified milk without sugar was given.

A few days later dextri-maltose (½ ounce) was given daily. This was gradually increased so the baby was getting more than 100 calories per kilo, the stools remaining normal, with a very satisfactory gain in weight. The baby, now 9 months old, weighing 17 pounds.

Case III.—Age 10 months. This boy had been unusually robust up to ten days before I saw him, when he began having several movements daily, described as green and fetid. At my first visit he was having small, greenish stools, with mucus and curds. There was considerable staining and pouting at the anus. Temperature 101°F. The baby was emaciated, eyes sunken, abdomen flabby. A mixture containing deodorized tincture of opium, bismuth and chalk mixture was being given. Milk had been withdrawn, but was now being given. Treatment, castor oil, two drams. Boiled water was given for 24 hours, then replaced by Eiweiss-milch. This was continued for six days, the movements gradually becoming yellow, well digested, but rather dry—three or four daily. This food was discontinued, and milk and water boiled given without sugar. The sugar was gradually added as noted previously.

From observation in my private practice I am of the opinion of Dennet and Benson that a preliminary cathartic in these cases of summer diarrhoea is not always necessary or wise, as in some cases, already in a weakened state, they may do harm.

During the diarrhea period we must see that the milk supply is as good as possible, while if in doubt as to its quality we may temporarily pasteurize the milk. During the hot weather sugar should be used or even omitted. Drugs are a secondary factor in these conditions. Strychnine may be given (1/300 of a grain every three or four hours) for its tonic effect, and we may in rare cases require opiates cautiously administered. An investigation by the Boston Board of Health shows that in 1911 there were 621 deaths from diarrhea and enteritis, of which 87 were breast fed and 534 bottle fed, i. e., 86% bottle fed.

Dr. Morse says that more mothers are nursing their infants than ten years ago. Let us hope the number will continue to increase, as herein lies a prophylaxis of many cases of diarrhœa.

The good results that I have obtained with the line of treatment indicated in this paper have led me to believe:

First. That many cases of diarrhœa in bottle-fed infants can be controlled by giving milk and water mixtures boiled without sugar.

Second. That diarrhea that has persisted for some time without improvement is best treated with Eiweiss-milch.

Third. That a starvation period is not always necessary or advisable in infants already in a much weakened condition.

Fourth. That in some cases not easily controlled, feeding with a barley gruel for twenty-four hours may result in marked improvement, probably by charging the intestinal flora.

Fifth. That many of us are inclined to place too much dependence upon drugs in this condition.

Sixth. That cathartics should be used only in a very few cases, especially those cases with fever, and then with intelligence.

*FOCAL INFECTIONS.

By Dr. Carl G. Dennett, Saco.

When micro-organisms gain access to the body, are able to grow and multply at the expense of the body and produce an abnormal condition, the process is spoken of as an infection. The degree of infection depends in part on the resistance offered by the primary and secondary defenses of the host and on the virulence or specific tissue pathogenicity of the infecting agent. A fulminating infection occurs when the defenders of the body are unable to kill or neutralize the infectant. In an acute infection the degree of resistance of the body is more nearly proportionate to the degree of virulence of the invading micro-organisms. In other words, at first the resistance of the body is overcome by the infectant, but under the stimulation of the infection the body is able to overcome the results of the invasion. When the defenses possess a higher degree of potency than the degree of virulence of the invading organisms the latter are either destroyed or localised in a circumscribed area of tissue. When the latter occurs, namely, a localized infection due to the failure of the defenses to completely destroy the bacteria, tissue growth attempts to prevent contiguous invasion by the process known as "walling off". During this process, in addition to the thick wall of fibrous tissue thrown out, new loops of

^{*} Read before the Maine Medical Association, June 29, 1921.

blood vessels are formed which are thin walled and permeable upon increased tension. While this protective barrier of newly-formed fibrous tissue usually prevents infection of the immediate surrounding tissues, the newly-formed loops of blood vessels, when drainage is inadequate, is the point of least resistance and would be predisposed to invasion. The walled off infection may remain localized and eventually disappear under the defensive and offensive powers of the tissues, or the local infection may be coincident with general systemic infection, or systemic infection may occur at some remote time subsequent to the local tissue invasion,

The general distribution of bacteria in some diseases with a welldefined focus of infection is well established. Acute rheumatic fever, endocarditis, gonorrheeal arthritis and septicopyemia are familiar examples. It has long been observed that in the case of acute miliary tuberculosis invariably an old focus exists somewhere in the body from which the tubercle bacilli come. The relation of foci of infection to recurring acute systemic and chronic diseases, however, is not so generally accepted or understood. The etiologic relation between an attack of acute tonsillitis and one of rheumatic fever, nephritis or neuritis which immediately follows the acute infection is easily recognized. Not all the cases in which this relation of cause and effect exist are so readily recognized. When bacteria from a focus of infection get into the blood stream a fulminating infection may occur with multiple localized infections throughout the system, depending in part on the virulence of the organisms and resistance of the tissues, or the infectant may become localized in some special tissue or organ, depending on the factors governing the secondary localization and dissemination of the bacteria.

There are two stages of focalization, a *primary* and a *secondary*. A break in the integrity of epithelium, anatomical or physiological, often results in a *portal* of *entry*. It is usually at or near this point that primary focalization occurs. The effects due to this primary focalization depend in part upon the number, virulence and specific tissue affinity of the micro-organisms and the vascularity and natural drainage of the focus. The bacteria may be disseminated from this point and cause secondary focalization by invasion or localization in the lymphatics or by invasion of the blood vascular system. Consequently secondary focalization may occur in any tissue or organ of the body. The specific elective tissue affinity of the micro-organism and the lack of localized resistance seem to govern at what point secondary focalization occurs. The lack of resistance is due in some areas, no doubt, to a poor blood supply and a consequent lowered oxygen content of the tissues.

It has been frequently noted that infection of the periarticular structures and tendinous portions of muscles is due to bacteria of low virulence and highly sensitive to oxygen. These structures have a poor blood supply in comparison to their functional activity with a corresponding low oxygen content. The local sensitization of tissue probably depends on some specific property of the bacterium themselves. In pneumonia, typhoid, meningitis and acute rheumatic fevers we have a bacteriemia, and yet the bacteria in each case localize respectively in lung tissue, lymph follicles, meninges and serous membranes. The gonococcus will attack the conjunctiva and the treponema pallidum the intact mucous membrane of the lips-membranes very resistant to the majority of micro-organisms. In scarlet fever the streptococcus hemolyticus is found in the throat and early complications, while in the segulae the streptococcus viridans, a bacterium of low virulence almost universally present in the tonsils, is often found in the kidneys and endocardium. Patients with chronic foci of infection may be sensitized similarly to infection, and this continual sensitization of the tissues by the endotoxims may be an important factor in governing the development of specific pathogenic affinity. The invasive property of bacteria is probably as dependent upon specific tissue pathogenicity as upon virulence.

The factors which determine this localization of micro-organisms in specific tissues and organs after gaining entrance into the circulation are obscure, but Rosenow's* brilliant results in "The Elective Localization of Streptococci" has thrown much light on this question. Streptococci isolated from appendicitis, ulcer of the stomach and duodenum cholecystitis, rheumatic fever, erythemanodosum, herpes zoster, epidemic paroditis, myositis and endocarditis were injected intravenously into dogs and rabbits. Growths also were obtained from the supposed primary focus and given animals intravenously. Miscellaneous strains were obtained, usually from apparently normal tonsils and from the laboratory where the organisms had been cultivated on artificial media for a long time. The post-morten examinations showed that streptococci from the various diseases have a most striking affinity for the organ or tissue from which they were isolated, which was in marked contrast with the strains as isolated from other sources. For instance, strains from appendicitis caused lesions in the appendix in 68 per cent. of animals, whereas the non-specific strains caused lesions in the appendix in only 5 per cent. of cases. Strains from ulcer of the stomach and duodenum produced hemorrhage in 60 per cent, and ulcer of the stomach and duo-

^{*} Rosenow, E. C., Journal of American Medical Association, 1915, LXV., 1687.

denum in 60 per cent., in contrast to the average of 20 per cent. hemorrhage and 9 per cent. ulcer following injections of other strains. Strains from cholecystitis caused gall bladder lesions in 80 per cent. of the animals injected, in contrast to 11 per cent, with other strains. Similar results were obtained with the remaining cases. The results following injection of the miscellaneous strains correspond roughly with the total average incidence of lesions in the various organs following the non-specific strains. The elective affinity was somewhat less marked from the strains isolated from the supposed focus than in strains isolated from the lesions in the various organs. Consequently a focus of infection may be looked on as not only a place of entrance of bacteria, but as a place where the organisms obtain that peculiar property whereby, when once in the blood stream, they are able to localize in some specific tissue or organ of the host. It is conceivable that bacteria infecting some particular tissue, like a joint, may gain tropism for that kind of tissue, and when injected into an animal the same tissue will be infected.

Inasmuch as the great preponderance of infections occur in mucous membrane, and by reason of the fact that life is terminated in a large majority of instances by infection of the respiratory and digestive systems, it is in these tissues and localities that we first must search for foci of infection. The focus is usually located in the head, due in a great measure, no doubt, to the constant exposure of the mouth and air passages to infection. Evans, in a study of the morbidity of young adults in the University of Wisconsin, noted in 3,900 instances clearly defined evidence of acute bacterial invasion. Of these 57 per cent. were nasal; 22 per cent. tonsilar; 17 per cent. oral; 2.75 per cent. skin; 1 per cent. genitio-urinary and 0.25 per cent. anal.

In the alimentary tract there are two localities where there is a marked collection of *lymph tissue*, the tonsils and appendix, and, as would be expected, it is in these two regions where normally the largest number of bacterial flora are found. The significance of the tonsils and appendix appears to be that of a protective mechanism against various products of absorption, bacterial and other. On the other hand, the regions in which these so-called protective organs are situated are the points at which infection most frequently occurs. In the throat, infection of streptococci, pneumococci, straphylococci, meningococci, poliomyelitis, the viruses of the exanthemata and other diseases; in the lower intestine, typhoid, appendicitis, dysenteries, tuberculosis, paratyphoid, etc.; in other words, it seems as though the micro-organisms had developed a special affinity to attack and develop disease in the very tissues which normally are supposed to constitute a protective

mechanism for the body. Consequently this lymphoid tissue is not equally protective against all organisms, in fact, quite the reverse, in that they furnish a good fertile soil for some strains of bacteria. On this account it might be advantageous to remove part of the mechanism. The tonsils, on account of their position and structure, are especially prone to infection. The epithelial surface is many times increased by reason of the branching crypts which penetrate deeply into the substance of the organ, thus increasing its absorption surface many fold. As has been definitely proven, not all germs that enter the tonsil will live and multiply; the bacterial flora is a highly specialized one, restricted to a few varieties. The most contant habitants are the streptococci, the hæmolyticus and viridans. This is highly important, as these strains have not been differentiated from strains that cause serious infections. The throat almost constantly harbors the hæmolytic streptococci, and it would appear that the crypts of the tonsils supply the throat with these organisms. This fact must be kept in mind in a study of the problem of hæmolytic streptococcus carriers.

The anatomy of the nasal cavities and accessory sinuses and the general prevalence of nasal infections impresses one with the probability of a rather common focalization in this region. The natural drainage of these sinuses is poor, especially the maxillary, and might explain in a great degree the persistent character of an infection when once the sinus is invaded. The proximity of dental structures to this sinus explains in part the common focalization here and the interrelated infection in these two regions. Infection may travel by mucous membrane from the throat and sinuses to the eye, middle ear and mastoid. Acute and chronic otitis media and mastoiditis must always be looked upon as sites of foci of infection.

Mouth infection, probably the most common location of a focus or source of systemic infection, begins in the vast majority of cases by an infection in and around the teeth. The oral cavity, with its temperature, moisture and nutritive materials, makes an almost ideal breeding place for bacteria. Neglect of oral cleanliness, detached gums, trauma, dental treatment, ill-fitting mechanical appliances, the almost constant admission of bacteria into the mouth by food and drink, fingers, inhalation, tooth brushes, etc., all add to and encourage bacterial life.

Infection around the teeth causing systemic derangements may be divided into two classes: First, the open discharging variety and the superficial lesions, such as pyorrhæa and gingivitis, and second the enclosed form, periapical abscess, which produce systemic disturbance directly through the lymph and blood vessels. The former is probably

less important from the standpoint of systemic disease than the latter, as the pyorrhea is more easily recognized and ordinarily has freer drainage. The chronic periapical abscess is accompanied by little reactive inflammation to wall off the infection, the pus accumulates under tension and the conditions as to oxygen tension and other factors are favorable for the transmutation of the streptococci to the types capable of infection and the acquirement of a selective affinity by which distant organs or tissues are involved. The dental pulp, once exposed, becomes infected, and if the process is not checked it extends through the apical foramen and involves the pericemental membrane and adjacent bone. This process often results in the formation of pus, which frequently does not find its way to the surface, and consequently persists as a chronic blind abscess.

As would be expected, the incidence of dental infection is greater in adults than children. In young people other foci of infection, such as the tonsils, are more likely to be responsible for the trouble.

Anderson reports roentgenographic films in 281 cases, including in all 3,276 teeth. Of the previously treated teeth, 1,168, or 73 per cent., showed evidence of disease; of the non-treated teeth, 133, or 4 per cent., showed evidence of periapical involvement, exclusive of pyorrhœa alveolaris. Duke found evidence of bone absorption in 81 per cent. of non-vital teeth in 1,000 medical cases. Ulrich states that 70 per cent. of artificially filled teeth are septic; Leonard, 60 per cent. It would appear, then, that the presumption is rather for than against infection in the mouth of an individual containing fillings, crowns, bridges and pulpless teeth, and regardless of the superficial appearance of health the most serious periapical infection might exist. There is no doubt but that, with the development of mechanical dentistry, serious oral infection has increased. Infection is often sealed in by measures deemed necessary for the preservation of teeth.

The striking feature with regard to these dental foci is the comparative insignificance of the lesion in view of the extensive damage it may indirectly cause in other parts of the body. The number of teeth involved, the size of the area, or the amount of pus bears no necessary relationship to the seriousness of the condition or to its possible danger. Chronic infections are dangerous because of quality, not quantity. The discovery of a purulent process similar to that frequently seen in the mouth in other regions of the body would be sufficient ground for the hasty summons of the surgeon. We must also recognize that mouth infections not only act on other parts of the body, but that the mouth is acted on by septic conditions elsewhere in the system.

Infections of the nose, nasopharynx, tonsils, teeth, ear and mastoid

are often accompanied by infection of the lymphatics draining those areas. Following the subsidence of the primary infection, the nodes may remain enlarged and infected, persisting as foci of infection near the portal of entry. Lymph nodes draining infected areas in any part of the body may persist as latent foci of infection. This is important, as these enlarged infected nodes might remain as persistent foci after removal of the primary focus. The prevalence of persistent lymphatic involvement is shown by Kretz, who in 600 autopsies found that in 90 per cent. of the bodies examined the cervical glands were infected with the streptococci. Practically always the regional lymph nodes are secondarily invaded from the primary local tissue infection. The lymph node infection may be subsequently a source of systemic infection or it may be the place of destruction of the invaders.

The demonstration of streptococci in the walls of the gall bladder and in gallstones is sufficient evidence that this organ must be looked upon as a probable point of localization. This focalization of bacteria may occur through the blood stream from the portal or entry or from a primary focus of infection.

The appendix may be involved in the same way. The prevalence of appendicitis points to this region as a very common persistent focus of infection causing local and systemic disease. The persistence of the primary focus from which the secondary foci in the appendix occurred might account for the frequent failure to relieve systemic symptoms by removal of the appendix.

The *intestines* are similarly infected either by hematogenous metastasis or by direct invasion of micro-organisms through the intestinal mucosa with lodgment in the mesenteric glands.

Infection of the genito-urinary tract may be followed by a primary focus of infection or acute secondary manifestations. The deeper structures are often involved by hematogenous invasion from other foci. The infection of the pelvis of the kidneys in children is often secondary to an acute infectious disease and must be considered as a probable focus of infection. Prostatic infection and seminal vesiculitis are frequent sources of infection.

Localization in the skin in the form of furunculosis and carbunculosis not infrequently cause secondary systemic infection. However, in this location ease of detection and correction cause a low incidence of secondary manifestations.

In the study of diseases caused by micro-organisms the same consideration should be paid to the primary etiology as to the symptomatology and pathology. The etiologic relation of a specific urethritis to a gonorrheal arthritis is evident to all. The fact that an acute ap-

pendicitis or an acute cholecystitis may complicate a mouth or nose infection is not so generally recognized. In searching for the focus, the type of bacterial invasion often suggests its primary localization. In the upper respiratory and digestive tracts the streptococcus—pneumococcus group and diptheriod organisms are most frequently found; the gonococcus in the genito-urinary tract; the typhoid-colon group in the intestinal tract, and the tubercle bacillus in the lymphatic system. Tonsillar infection is most common in early life and dental in late life. The recognition of an acute focalization is usually made easy by the objective and subjective symptoms of local inflammation. It is the chronic focus of infection, that which causes recurring acute systemic and chronic diseases, which offers the great difficulty in recognizing. The past history is of great importance. The recurrence of acute local infections, such as dental abscesses, tonsillitis, sinusitis, gonorrhea, etc., would indicate the liability of a focus in that locality.

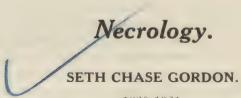
The removal of the focus of infection prevents the invasion of the tissues by additional organisms from the primary focus; it has not, however, disturbed the organisms already in the other tissues of the body. Consequently, to ignore this latter fact by simply removing the primary focus or establishing freer drainage, with the consequent neglect of any further management of the case, would not prove of much benefit to the patient. The resistance of the host against those invaders already there should be built up by all the known means of support of the patient. An investigation may reveal more than one apparent focus of infection, an important fact, inasmuch as the source of infection must be removed as the first step in treatment. By removing a definite focal point of chronic infection the resistance and healing power of the patient are given opportunity to recuperate. A prompt cure cannot always be promised, even in those patients whose illness clearly originated in a focus of infection, for after the removal of the apparent primary focus there often remain the mechanical injuries to eves, bones, joints, etc., or other tissues may have become secondary foci of infection, and recovery is a question of measures which shall build up the resistance of the patient by improving his general nutrition.

The opening up of fresh areas for the absorption of pathogenic bacteria and their toxins—general infection, pneumonia, the stirring up of acute symptoms in the joints, appendix, heart and other tissues—are possibilities to be seriously considered in the removal of foci of infection.

Regardless of whether or not the tissue reactions are due to toxins, protein combined with toxin, or to some split product of protein, the

fact remains that there is something specific about the streptococci, otherwise we would not have one producing pus, the other an erysipelas, the other infection of heart, another acute rheumatism, and another chronic affections of the muscles and joints. This fact must be taken into consideration when dealing with specific treatment.

In many instances the pendulum has swung too far, and in our efforts to eradicate suspected foci we must not sacrifice sound and useful organs.



1830-1921.

Although the very grateful eulogy of the Bangor Committee concerning the career of our former President has already been printed in the JOURNAL, it would be an act of excessive remissness on the part of the Necrologist not to state briefly some of the historico-medical facts connected with the life of this remarkable surgeon, who was for many years part and parcel of the surgical history of this nation.

He was born in Fryeburg; August 17, 1830, and he died in Portland, August 22, 1921, entering upon his ninety-second year. He was educated in country schools and at Fryeburg Academy, and early learned how to manage and how to teach children. When he was nineteen his health failed, and when a committee from Evansville, Indiana, visited Fryeburg, young Gordon was suggested as a teacher for that distant western village. His parents were so anxious concerning his health at this time that they gladly consented to his absence from home, in the hope of a cure. This he obtained in the West, after a year, and he lived, as we have seen, to be over ninety. On his return he taught school during medical vacations, attended a course of lectures at Dartmouth, and obtained his degree at the Bowdoin Medical School in 1855, presenting a successful thesis on "Hemorrhage." He then settled in Gorham and soon had an excellent practice.

With the beginning of the Civil War he was commissioned Assist-

ant Surgeon in the 13th Maine Regiment and went to Ship Island, where he had grand opportunities for practice amongst the troops weakened from lack of nourishing food, and attacked with diphtheria and typhoid. After a year he was promoted to the rank of Major, and surgeon of the Louisiana Regiment, and served in various campaigns, with many sick and wounded to treat, until the end of the war. He settled then in Portland, and with the oncoming of abdominal surgery in women, and the recognition of appendectomy as the radical cure for the old "typhlitis", he soon forged into the front ranks in Maine, read many papers before our Association and in national societies, and was chosen President of the American Surgical Society and Vice President of the American Medical Association.

Amongst his papers I note those on "Catgut Sutures," "Hysterectomy," "Pelvic Congestions," and others too numerous to mention, and after reading them he never failed to defend his views with the language of a vigorous debater. As a result of his prominence, year after year, he became President of our Association in 1883, conducted the sessions with genial suavity, and in his address he spoke on success in medical practice, "Keep in touch," he said, "with older members of the profession; be devoted to your practice." In another paper before the Loyal Legion he defended the fervor of the women of the South, compared with the indifference of those in the North, and emphasized the inefficient sexually-neurotic nurses who then cared for the troops.

Dr. Gordon was a man of temper at times, and there was an instance of this when at a meeting of a private society he read a paper on a new method of treating gonorrhoea. Nobody present said a word concerning his suggestions, and the talk ran off in different directions. Losing his temper at last, he arose and said that if no notice were to be taken of his carefully prepared paper, he might then and there resign. Explanations and apologies followed at once, and he continued in the ranks.

His opinions, once formed, were clung to vehemently. If he liked a fellow practitioner he did everything in his power to push him into a successful business, but if he disliked him he persistently urged his own clients to have nothing to do with that unfortunate man. Some thought that his obstinacy arose from his having occupied a position in the army, where he could order everybody around, and in which no-body of inferior rank could gainsay him.

He was amusing at times, and there is a story that once, on meeting a prominent surgeon, Dr. Gordon said: "Well, how do collections go with you?" "Not very well at present, I must confess." "Well," said Gordon, "mine are first-rate, and I will tell you just why. You ask

\$1,000 for your appendectomies, and you have to wait for the cash, or else take a discount, but I only ask \$500, and I get it every time."

Dr. Horatio Small and Dr. Gordon had a good deal of rivalry at one time on the question of how to get most rapidly to their patients, and when one of them set up a handsome covered carriage, with a fast horse and handsome harness, the other set up a handsomer carriage and harness with a span of horses.

Then again, when Dr. Small had sent out for Dr. Gordon in consultation in a desperate case of pneumonia, Small waited a few minutes before letting blood as a last resort. He had, however, hardly inserted the lancet and set the feeble stream in motion, when Gordon dashed in, in a hurry, nodded a swift assent, and clapped him on the back, saying, "That does the job, Small; I know it." The man's life was saved, and both congratulated the other on their agreement in treatment.

Dr. Gordon went abroad several times, once reading a specially prepared paper on "Pelvic Congestion" at the Copenhagen Medical Congress in 1884, and when in England he went to admire the bold operations of Lawson Tait, who was a man after his own heart, whilst for the carbolic acid of Lord Lister he had no enthusiasm at all. To him plain sterilized hot water was good enough in all abdominal surgery.

He was devoted to the Democratic party and served for years on the National Committee, and he often spoke publicly in political campaigns. He had a fine residence at Fryeburg, where during the summer he dispensed abundant hospitality to visiting friends and physicians from everywhere, and especially to Portland delegations of friends congratulating him on his birthday, the seventh of August, for many a year in succession.

He served as a surgeon on the staff of the Maine General for twenty years, from its foundation until 1894. On the fiftieth anniversary of his practice of medicine, he was delighted to be honored with a banquet and a handsome present of a silver service, in remembrance of the day and of the highly beloved surgeon, man, and practitioner of medicine.

Much more might be said, and deservedly said, concerning the long and very successful medical career of Seth Chase Gordon, but this much must suffice as presenting merely a miniature account of what he accomplished during his long life.

J. A. S.

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EPITHELIOMATA—ROENTGEN-RAY TREATMENT OF.

By Royce B. Josselyn, M. D., Portland, Me.

The following is a brief outline of the treatment of epitheliomata as carried out with modern roentgen-ray technic. For the method we are indebted to MacKee, Remer, Witherbee and others. A report of several cases is also included, briefly described.

Cases are treated by the following technic: Spark gap, 6 inches; milliamperage, 3; skin distance, 8 inches; no filter. Time is the varying factor, according to dosage required, although other factors can be changed except the spark gap, which should never be less than six inches for skin treatment.

The formula for determining dosage is as follows:

This is the formula for one skin unit, or erythema dose. Time is increased to 3 minutes for one and one-half skin units or to 4 minutes for two skin units. One skin unit is also called the epilating dose, i. e., a dose sufficient to cause temporary epilation. In malignant disease, the surrounding area is screened to within 1/4 or 1/2 inch with lead foil and tube placed so that rays strike lesion to be treated at right angles. Generally speaking, it is advisable to give one dose of two skin units, repeating with a prophylactic dose in 4 to 6 weeks, this last dose being usually one and one-half skin units. Erythema may be expected in ten days or two weeks, followed later by some browning, which disappears a little later. If erythema exists at fourth week, it is

advisable to wait until the sixth week before giving second dose. This dose should not be delayed longer than the sixth week from time of first treatment. This method is used for cases without glandular involvement, in which case surgery should be advised.

In X-ray treatment, as outlined above, the scarring is very slight, and makes the method especially desirable for lesions of the face. Patients will consent to this treatment many times when they will absolutely refuse surgical interference. A combination of the two methods is indicated in certain types of cases, especially those with glandular involvement.

A report of two cases is given below:

CASE C-10.—Male, private patient from Portland, aged 38 years. Epithelioma, rodent ulcer type slightly larger than silver dollar, located on left cheek. Duration 24 years, dating from injury to face that never healed. The present lesion has doubled its size in the past year, Wasserman was negative. Pain was severe at times, especially toward left eye. Case referred on October 17, 1921, at which time one and one-half skin units were used. Patient returned Nov. 21, 1921, and X-ray one skin unit given. At that time the lesion had entirely closed over, and dressing was omitted for first time in years. Scarring in this case is very slight: The doses given this case were smaller than usual, as patient was a blonde, and it is a well-known fact that blondes do not tolerate X-ray as well as brunettes. Another treatment of one and one-half skin units is to be given in six weeks.

CASE C-6.—Male, private patient from Lewiston, Me., aged 58 years. Had tumor size of kidney bean under left eve. Biopsy by Dr. Whittier showed epidermoid carcinoma, probably originating from hair follicle. This case was first seen in 1919, when excision was done under local anesthesia. This, although done as carefully as possible, was followed by recurrence, and patient came back Aug. 3, 1921, with tumor slightly larger than before and in the original location. Large vessels were to be seen on tumor, which bled freely at times. Mass had cyanotic appearance, and pain radiated toward eve and side of nose. X-ray two skin units used Aug. 3, 1921, which reduced size of lesion one-half in one month. Symptoms also disappeared. On Sept. 3, 1921, one and one-half skin units were used, followed a month later by one skin unit. At present time tumor is nearly gone. A gradual shrinking has occurred, with brown discoloration and no unpleasant symptoms. This case is still under observation. Excision, followed by X-ray treatment, was advised in this case, owing to thickness of growth, but excision was not permitted by patient.

COMPLICATIONS OF MUMPS.

By THOMAS A. FOSTER, M. D., PORTLAND.

Dr. E. Moro's article on mumps, appearing in Pfaundler and Schlossman's "System of Diseases of Children," contains the following statement concerning the complications of this disease. The complications and sequelæ of parotitis are as rare as they are diverse: Somatic disturbances of the nervous system, such as rigidity of the pupils, paralysis of various ocular muscles, monoplegia and various sensory disturbances. All of these phenomena point to the existence of cerebral focus lesions, the severest of which, under the picture of a post-parotitic meningoencphalitis, may result in death, as asserted by Maxinovitch and Gallavardin,"

Dunn also informs us that "The nervous system is sometimes affected in the mumps, more often in adults than in children. Such sequelæ are rarer but perhaps more common than any other. The group of symptoms suggesting meningeal irritation, which are often conveniently described under the general term of meningisums,' are sometimes seen during or following an attack. They vary much in severity. The prognosis is favorable, except in those rare cases in which there is an actual encephalitis."

Holt, in his "Diseases of Infancy and Childhood," asserts that meningitis may occur as a complication of mumps. We have seen one such case, accompanied by high fever, delirium, opisthotonos, and a turbid cerebrospinal fluid containing a great many polymorphonuclear cells. It was, however, sterile. The child recovered after an illness of five days.

I will now go on to say that I have personally seen in the same family two children who developed the complication described as meningisums. They were seen last April in consultation with Dr. Charles Knight, of Portland. The first patient, a boy of five years of age, had been sick for five days with a mild attack of double parotitis. On the fifth day he began to vomit and continued for twelve hours steadily. At the same time he complained of violent headache. He had a temperature of 100°, pulse of 96, headache, drowsiness, slight rigidity of the neck, slight double Kernig sign, but both pupils reacted. The diagnosis was made of meningisums, following the mumps. The patient ceased to vomit on the following day, but complained more of headache and rigidity of the neck, whilst Kernig sign was more marked. Spinal puncture revealed the fluid under considerable pressure and very slightly turbid, with a cell count of 53. Soon after the puncture the patient felt more comfortable and continued to improve into con-

valescence without further treatment. The second patient, an older brother of the first, had a more severe double parotitis, and on the eighth day he began to vomit occasionally, and to continue with that symptom off and on for eighteen hours. He also complained of headache and drowsiness. On the ninth day the temperature was 101°, pulse 130; there was slight rigidity in the neck, and a double Kernig sign. The vomiting ceased and the patient felt more comfortable, so that the spinal puncture was postponed. On the tenth day the boy felt decidedly befter and so went on to a perfect recovery without further treatment.

Conclusions: These two cases go to show that the nervous system may be affected in the mumps from the fifth to the eighth day; that vomiting may be an early symptom of this complication; that spinal puncture is indicated with severe symptoms and "signs," and that, on the whole, the prognosis seems to be distinctly favorable.

Correspondence.

Portland, Maine, December 10, 1921.

TO THE EDITOR:

The expected has happened! Portland is to be congratulated upon the fact that at last she has been selected by the chiropractors as the location and seat of their "Northeastern Fountain-Head of Chiropractic." I am informed, upon reliable statements, that shortly there is to be a "Maine College of Chiropractic" set up in Monument Square. Portland, where the youths, middle-aged and old men of this state may take up the study of this latest "science."

It is to be regretted that such a school can gain recognition, incorporation and charter from the State of Maine. I am informed, too, that the Attorney General of Maine has given sanction to this "institution of learning." It seems incredible that other officials of the state who have charge of the matter of establishing schools could allow their recommendation.

I have this day communicated with the Attorney General and the Superintendent of Schools and shall have some report to make at the next county society meeting. Might I ask the members of the county and state societies to make similar inquiry, and if the information received coincides with the above made statements, to make suitable profest.

Yours very sincerely,

ADAM P. LEIGHTON, JR., M. D., Member of the State Board of Registration of Medicine.

Notes.

NEW LABORATORIES FOR ABBOTT'S.

A substantial group of eight concrete buildings in North Chicago looms as evidence of the growth that is said to follow true service.

When the war cut off the import of medicinal chemicals used quite generally by physicians in this country. The Abbott Laboratories were among the first to provide for the urgent home demands. Such drugs



as Barbital, Procaine and Cinchophen were produced in this period by its chemists under license from the Federal Trade Commission. Since that time there has been a continuously increasing demand for these and other high-grade synthetics, under the Abbott label, necessitating an enlargement of manufacturing space and facilities.

Along with this, the research department of the firm is being enlarged and valuable new agents for the physician's use are being developed.

The executive officers of The Abbott Laboratories will be maintained at the present address, 4739-53 Ravenswood Ave., Chicago.

County News and Notes.

CUMBERLAND.

CUMBERLAND COUNTY MEDICAL SOCIETY.

The fifty-eighth stated meeting of the Cumberland County Medical Society was held at the Falmouth Hotel, Portland, Nov. 15, 1921.

The meeting was called to order at 8.00 P. M., by Dr. N. M. Marshall, President. There were present 65 members.

The records of the previous meeting were read and approved. The address, "Cancer Problems of To-day," was given by Dr. Robert T. Greenough, of Boston. "Failure of the control of cancer," he said, "led to the so-called 'cancer week,' the object of which was to educate the people as to what could be accomplished if treated properly in the early stages." "Cancer week" should be prolonged until ultimately this disease is under control. Out of 517 selected cases at the Massachusetts General Hospital, 54 per cent. of these were beyond any attempt at radical cure. The remaining 46 per cent, were operated upon, and of these 15 per cent. died from the operation; and of the 31 per cent. that lived, only 5 to 10 per cent. were permanent cures. These figures give a fair representation of the situation as it is to-day. This appalling condition can be changed only when the public's misconception of cancer is eliminated, so that this disease will come to the physician early. Then it is often difficult to make a positive diagnosis without the aid of the pathologist. At any rate, in suspicious or positive cases, immediate radical operation, wide excision of tissue, with the use of X-ray or radium as adjuncts, should be the method adopted, as metastasis has been known to occur in six weeks from the appearance of the initial lesion. A lip case was given as an example. Unfortunately, radium has been thought a panacea for this disease, but experience has proven that it is not, and that it should never be used alone, except in a few instances, such as superficial skin cancers and in cases where an operation is inadvisable. By using X-ray and radium after operation, it tends to localize the disease and keeps the patient under closer observation. Many instances of this were given.

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Leading physicians now realize that physiotherapy can be of great assistance to them in their general practice. It has shown its value particularly in a large number of chronic conditions, and also in the treatment of occupational injuries received by mill workers and artisans of various kinds.

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A general discussion followed, in which many of the members availed themselves of the opportunity to ask questions, all of which were cheerfully answered by Dr. Greenough, after which a rising vote of thanks was given to Dr. Greenough.

The business meeting was now resumed.

The Secretary presented certificates of transfer of Dr. H. H. Cleveland, of Portland, from the Massachusetts Medical Society, and Dr. Harlan R. Whitney, of the Hillsborough County Medical Association of New Hampshire. Both were elected to membership.

The application of Dr. T. J. O'Sullivan was presented and referred to the Board of Censors.

Dr. Stanley P. Warren, as chairman of the committee, read a memorial for Dr. Barzillai B. Foster. It was voted to accept this, place it on file, and send a copy to the family of Dr. Foster.

Dr. C. B. Sylvester, as Councilor of the First District, read a report of the first meeting of the Councilors at Bangor, October 13, 1921. The nursing section of this report was freely discussed by many members, and finally it was voted that a committee of five be appointed by the chairman to investigate the many phases of this complex problem and report at the next meeting. The President appointed for this committee, Dr. C. B. Sylvester, Chairman; Drs. Owen Smith, A. P. Leighton, Jr.; Mortimer Warren, and W. Bean Moulton.

Some comments were made in regard to the liability insurance portion of Dr. Sylvester's report. The report was accepted and voted to be placed on file.

Voted to adjourn. Adjourned.

E. E. Holt, Jr., Secretary-Treasurer.

THE JOURNAL

OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association.

All papers, case reports, etc., should be typewritten when possible.

Proof-sheets will be sent to the author when requested.

Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

Vol. XII.

FEBRUARY, 1922.

No. 7

THE THYROID GLAND AND THE TOXEMIAS; WITH SPECIAL RELATION TO INTESTINAL STASIS.

By WILLIAM SEAMAN BAINBRIDGE, Sc.D., M.D., C.M., New York City.

The inter-relation of the endocrine glands is so close that it is almost impossible to have a pathological condition of one gland without some functional disturbance of the other glands of the body. This is particularly true of the thyroid, which seems to be, in a large measure, the monitor or regulator of the entire internal secretory system. Many theories have been advanced as to the way in which the thyroid functions, but little has been proved beyond the fact that the organ produces an internal secretion. This fact has been pretty well established by transplanting the thyroid gland from its primary site to another part of the body, where it will function as thyroid tissue capable of carrying on its original mission in the organism.

According to Hertoghe, there are very many pathological conditions of the human body which may be traced to the *under* or *over* activity of the thyroid gland. In hypothyroidism the degree of thyroid inadequacy may range from one extreme to the other—from almost complete idiocy to those types in which but one symptom proves the thyroid insufficiency. In cases where the activity of the gland is not sufficiently impaired to cause advanced myxedema, the symptoms of hypothyroidia most frequently met with are obesity, with fat pads at various points of the body, loss of hair and teeth, lassitude, stub-

* Paper read before the Tri-State District Medical Society Meeting at Milwaukee, Nov. 14-17, 1921, and the Cumberland Co. Med. Society in Jan.

born constipation, mental torpor, enlargement of the lymphatic glands and frequently enuresis.

In myxedema, which is the maximum expression of hypothyroidism, as it progresses after the body growth has been accomplished there is infiltration throughout the various tissues of the body. When a cell has done its normal work for some time it degenerates, and the proteid molecule must be taken to pieces. It must be split into minor principles and then eliminated through various channels—lungs, bowels, and especially through the kidneys-in the form of urea. If the thyroid is deficient, these principles are not carried away as rapidly as necessary. They are retained in the body under the form of fat and mucin; they enlarge the body cells and cause an accumulation and edema of a specific kind which is termed "myxedema." Muscular cells are infiltrated with fat and mucin, and contraction of the muscles is slow and may be painful; limbs become stiff and the patient complains of rheumatism. Glands become infiltrated and the secreting elements are often suppressed. Hepatic and intestinal secretions are greatly diminished. In thyroid deficiency the skin becomes dry and cold and a good soil for eczema and other skin diseases. The nervous system sometimes demonstrates the infiltration by sluggish reflexes. headache, giddiness, loss of memory, and, in the advanced stage, attacks of coma, which may terminate fatally.

Infantile myxedema, or cretinism, is deficiency of thyroid secretion during the period between birth and puberty. It is characterized by retardation of physical and mental development, the main symptoms of which are stunted growth, thickened lips and tongue, a harsh skin and more or less mental deficiency. While cretinism is the result of hypothyroidism, it should be remembered along this line that in every cretin the thyroid gland is not necessarily absent. In some cases it is markedly enlarged. It is not the size but the functional output of the gland that counts.

Severe cases of hypothyroidism, such as cretinism and advanced myxedema, are striking and not easily overlooked, but mild degrees of these conditions are likely to escape any but the must painstaking examiner.

In hyperthyroidism, a morbid condition of the entire body, characterized by the presence of symptoms due to the absorption of an excessive amount of thyroid secretion, with or without enlargement of the thyroid gland, suggests the diagosis commonly known as "exophthalmic goitre," Graves' disease, or Basedow's disease. Inasmuch, however, as many of these patients exhibit no prominence of the eyes,

the reference to "exophthalmos" in the naming of the disease is inaccurate and misleading. Needless to add, the attachment of the name of an individual to a disease, however important his observation may have been, is entirely unscientific. The term "systemic goitre," which I first used in a paper* published in 1914, seems a more accurate designation of a condition the symptoms of which are due to the introduction of thyroid toxins into the system, resulting in hyperthyroidism or dysthyroidism—increased or perverted thyroid secretion. Systemic goitre should be differentiated from simple goitre, in which. no matter how great the enlargement of the thyroid gland, there is an absence of thyreotoxic symptoms. With systemic goitre there is usually increased frequency of action and palpitation of the heart, protrusion of the eyeballs, tremor, and a number of mental and nutritional disturbances. All of these conditions may be present or one or more may be absent. Moreover, the enlargement of the thyroid gland is of secondary importance, since it is not the size but the activity of the gland which is the determining factor. Even an abnormally small gland may oversecrete and cause systemic symptoms.

Before approaching hyperthyroid conditions, associated with obvious goitre, from an operative standpoint, it may first be necessary to consider whether all the applicable hygienic measures have been exhausted. The thyroid gland is especially susceptible to many kinds of infection-from gums, tonsils, teeth, sinuses and blood, but particularly from a toxic condition of the intestines. In chronic intestinal stasis—a persistent retention or retardation of the contents in some part of the intestinal canal—there is frequently a condition of intestinal putrefaction and autointoxication which causes an instability of the thyroid gland. Lane writes: "In uncomplicated cases of stasis the thyroid sometimes wastes until it may be imperceptible to the finger. It gradually but surely increases in size after colectomy. The wasting of the thyroid plays an important part in the development of the symptoms which the sufferer from chronic intestinal stasis exhibits. The thyroid is liable to various infections which cause the several forms of disease of that organ, such as exophthalmic goitre, general hypertrophy, the development of adenomatous tumors, of cysts and finally of cancer."

In an earlier paper* I called attention to many abnormal mam-

^{*&}quot;The Present Status of the Surgery of Systemic Goitre," published in The Journal of the Michigan State Medical Society, April, 1914.

^{* &}quot;Benign Mammary Tumors and Intestinal Toxemia," American Journal of Obstetrics and Gynecology, February, 1921.

mary changes apparently caused by autointoxication. Cases were reported in which the amount of toxemia present was reflected by the degree of change in the mammary tissue. When the autointoxication was relieved, the breasts either markedly improved or returned entirely to normal. However, the *rapidity* with which the breasts returned to normal depended upon the thoroughness of the elimination of the toxic causes. It is reasonable to assume that many of the conditions which produce morbid changes in the mammary gland have the same effect on the thyroid, allowing, of course, for the difference in the gland structure. Poisons in the blood may cause, first, irritation, then glandular hypersecretion, later hypertrophy and finally atrophy and lessened function of the gland.

The thyroid, as well as all other glandular tissue, is bathed in blood and dependent upon the character of its hematogenous environment, both for its own nutrition and its proper function in the body economy. As a tissue it must have food. As a gland it must have the proper material to work up adequate secretion, in quantity and quality, for the normal demands of the organism.

In writing of thyroiditis, Leonard Williams states: "Of all things in medicine, chronic constipation ought to be the easiest of diagnosis. But it is not. There are hundreds of people who have a daily evacuation who are nevertheless walking septic tanks. These tanks are terrible depressors of the thyroid, and unless you empty and disinfect them, your correct diagnosis of thyroid inadequacy and its logical thyroid therapy will avail you nothing." Chronic intestinal stasis is not constipation. Some persons who are markedly static suffer from persistent diarrhæa. The writer has elsewhere spoken of the time when there was difficulty in understanding what residual urine really meant. As we know, frequent micturition may be merely the overflow from the bladder, so in chronic intestinal stasis one may have constipation with diarrahæa—an overflow of fecal matter with large amounts of poison retained and absorbed by the system.

As early as 1779, the relation between goitre and a static condition of the intestines was more or less vaguely outlined by Wilmer, a surgeon of Coventry, England, who published a volume entitled: "Cases and Remarks in Surgery, to Which Is Subjoined an Appendix Containing the Method of Curing the Bronchocele in Coventry." The author cites two cases cured by medical measures, the first by a prescription of roots of madder, to be followed by a *purge*, after which two drachms of alcaline powder mixed with three large spoonfuls of old red port wine were to be given each night and morning; the second

prescription called for "a medicine composed of millepides, burnt spung and cinnabar of antimony, the patient to be *purged at intervals* with mercurial cathartic pills." Probably the *purging at intervals* had a more vital bearing on the cure of the bronchocele "in forty days" than was evident to the foresighted author of the old and illuminating volume.

The evidence of several authorities, including Rowell and Chapple, tends to prove that alimentary toxemia is the basic cause of many goitres. These authors cite instances of goitres which have diminished in size or disappeared as the result of medical or surgical measures which had the effect of draining the intestine. McCarrison reports cases of goitre successfully treated by means of vaccines prepared from organisms known to inhabit the intestines. While it has been demonstrated that the thyroid gland may be infected from many sources, the following case histories are cited to illustrate the point that the thyroid reacts very markedly to toxins from the intestinal canal. For the purpose of clearness the cases have been divided into seven classes:

CLASS 1.—Mild types of thyroidism which clear up when the toxic elements of the system are removed, as:

- (a) The atrophic gland, with small isthmus, which may increase in size and function when the toxemia is relieved.
- (b) The hypertrophic gland, which may function normally when the intestinal stasis or other toxic condition is removed.

CLASS 2.—In this class hyperthyroid conditions may be present for a long time, until a sudden nerve strain, a fright, or an aggravation of the toxic elements may cause acute and pronounced symptoms, often with obvious goitre.

CLASS 3.—This class includes the cases in which the thyroid is so atrophic that treatment for toxic conditions alone will not relieve the patient and thyroid treatment must be instituted and sometimes continued indefinitely.

CLASS 4.—These patients have not only a chronic hyperthyroidism, but a marked increase of thyroid activity, because of an acute or a subacute abdominal condition. They may be cured by operation upon the alimentary tract.

CLASS 5.—In this class are placed the cases in which degeneration of part of the gland has occurred and irritated the remainder, causing hypersecretion. Operation on the goitre is necessary to lessen the abnormal stimulation of the gland.

CLASS 6.—In this group we have pronounced systemic goitre,

where operation is indicated and where abdominal conditions also require surgical interference to effect a cure.

CLASS 7.—These are cases with marked thyroidism—large or small gland—but demanding operation. The system is so thoroughly poisoned with thyroid toxins that the necessity of ligation, or some other form of thyroidectomy, is absolutely indicated. Often the patient is so toxic that a period of preparation for operation is required. Here a careful realization of the complexity of the toxic state may be of aid. Lessening of the hyperthyroidism, by topical application of ice to the neck, physical and nerve rest, eliminating possible acidesis by alkalies and free catharsis, is often of advantage. In addition, the use of alkaline colonic irrigations and attention to any focal infection may prove of distinct value. This class needs no examples. It is mentioned because a realization of the handicap from focal and especially intestinal toxemias in pronounced systemic goitre may aid materially in reducing mortality.

ILLUSTRATIONS.

CLASS 1.—(a) T.M., female, married, 36 years of age. This patient consulted me June 12, 1917, for hemorrhage from the bowels, vomiting, with blood, and fainting spells. Eleven years earlier, in another city, she had had a gastroenterostomy for duodenal ulcer. On examination, I found the patient emaciated, with small breasts and atrophic thyroid gland. There was distinct tenderness over the head of the colon and along the line of the appendix. A diagnosis of chronic intestinal stasis was made. Operation was performed July 3, 1917. The omentum was adherent to the old abdominal scar, the gall bladder and transverse colon were a mass of adhesions. There was a broad ileo-pelvic band. These conditions were corrected. For some months after operation medical treatment was required—digestives, intestinal antiseptics, etc.,—but finally the patient's condition improved and the breast tissue and atrophic thyroid gland became more nearly normal in size. November 7, 1921, her physician reported that there were absolutely no abdominal symptoms, the patient was in the best of health and the thyroid gland, while still small, was slowly increasing in size.

CLASS 1.—(b) R.A., female, married, 36 years of age. For eight years prior to operation this patient was subject to attack of bloating, severe abdominal pain, nausea and vomiting, with marked constipation. The attacks were usually from a few days to a month apart and lasted eight or ten hours. The patient's neck was much enlarged,

there was considerable pulsation and the eyes were very prominent. March 29, 1916, operation was performed for mid-group stasis. Marked ileo-pelvic bands and a cæcum rotated at the terminal ileum were found. The ascending colon was twisted over to the outer side, just below the hepatic flexure, and across this point was a mass of adherent omentum. Where the cæcum rotated inward, when the patient was erect, there was a point of almost complete obstruction. These conditions were corrected. October 28, 1916, the patient reported that the abdominal pain and nausea, the indigestion and constipation had disappeared. On examination, the goitre was found to have diminished in size to such an extent that operation for this condition was no longer considered necessary.

CLASS 2.—F.G., female, single, 24 years of age. Patient consulted me May 29, 1917, for palpitation of the heart, prominence of the eyes and great nervousness. She had suffered from a severe nervous strain and the hyperthyroid symptoms had developed suddenly. On examination, systolic murmur at the base of the heart, enlargement of the left ventricle, intention tremor, a lumpy condition of both breasts and a bilateral goitre were found. There was marked ileal tenderness and much bloating of the abdomen. However, the abdominal symptoms were not such as to warrant surgical procedure. A trial of medical treatment was decided upon, and digestives, rest, a supporting belt and brassiere, tonics and intestinal antiseptics were prescribed. The importance of a free evacuation of the bowels daily was impressed upon the patient, who was advised to report for examination at intervals. October 17, 1917, the breast lumps were softer and smaller and the goitre had so lessened in size that operation was considered unnecessary.

CLASS 3.—(a) B.N., female, married, 35 years of age. This patient consulted me February 12, 1917. She was suffering with severe pain in the epigastrium and vomiting. There was exquisite tenderness in the right iliac region and over the gall bladder. Her hair was falling out, her finger nails were brittle and her breasts fatty, large and dependent. Her weight was 203 pounds. It was evident that the patient was suffering from chronic appendicitis, a disturbance of the internal secretions and much autointoxication. X-ray examination showed esophageal diverticulum and intestinal bands and adhesions constricting many points. Operation was performed May 26, 1917. There was a marked constriction of the ascending colon by a tight band across the gut. Adhesions covering many other points in the intestine and a chronically inflamed appendix were removed. The autointoxi-

cation had been present for many months, and the thyroid gland had become atrophic to such an extent that correction of the intestinal condition only partially relieved the hypothyroidism, and it was necessary to institute thyroid treatment and continue it as required. However, the patient no longer suffers from the abdominal pain and tenderness or from the vomiting. She has lost fifteen pounds and by taking a moderate amount of thyroid daily, leads a more comfortable and normal existence.



- (1) Obstruction of ascending colon by bands.
- (2) Enlarged caecum.
- (3) Chronically inflamed appendix, full of fecal matter, held tightly by bands.

CLASS 3.—(b)—N.M., female, married, 38 years of age. In February, 1910, when the patient first consulted me, she was very fat and flabby, suffered from constipation, had much pain and distress in the abdomen and prolonged menstruation. Examination showed chronic appendicitis, stasis bands and unbilical hernia. The neck was very fat, but the thyroid was decidedly atrophic. Operation was performed March, 1910. An omental mass from two hernial sacs, each the size of a hen's egg, in the abdominal wall, a chronically inflamed appendix and many adhesions were removed. The abdominal incision was through 8 cm. or adipose tissue. After the removal of the intestinal bands and adhesions, the patient improved and was then placed on thyroid. In 1919 she became eareless and left off the thyroid. Jan-

uary, 1921, she again consulted me for a lump in the right breast. The patient thought she had hit the breast about a year earlier, and that the lump had slowly developed. Examination showed that the patient was again suffering from autointoxication and hypothyroidism. She was given laxatives, intestinal antiseptics and thyroid. Six weeks later the lump in the breast was softer and smaller, and eventually it disappeared entirely. The intestinal treatment softened and lessened the size of the lump, but the thyroid was required to fully remove the abnormal condition of the mammary gland.



- Caecum tightly bound down by bands and adhesions.
 Terminal ileum partially obstructed by bands, gut above dileted and wall thickened.
- (3) Chronically inflamed appendix, full of fecal matter, but free.

CLASS 4.—A.S., female, single, 24 years of age. This patient consulted me May 10, 1916. She had a large goitre, there was pulsation in the neck and the eyes were prominent. The patient complained of soreness and pain over the appendicular region. X-ray showed intestinal bands and adhesions, and operation was performed June 10, 1916. The head of the colon, with very short mesentery and terminal ileum, was found to be apparently congenitally retropoised and attached to the posterior abdominal wall with a broad and massive attachment, binding the terminal ileum down in the cavity of the false pelvis. The appendix was subacutely inflamed and filled with material. There was accentuation of the last kink of the pelvic colon. These conditions were corrected and the patient's recovery was uneventful. Four months after the operation there were no longer any abdominal symp-

toms and the goitre had completely disappeared. The patient reports that at present, November, 1921, she is in excellent health.

CLASS 5.—C.W., male, married, 47 years of age. This patient consulted me February 19, 1912, because of great difficulty in swallowing. Five weeks earlier he had noticed a lump, the size of an orange, in his neck. The patient exhibited cardiac symptoms and considerable intention tremor. Operation was performed February 27, 1912. The right half of the thyroid gland and the isthmus were removed. Pathological report showed marked vascularity and multiple cysts, containing colloid, and calcareous degeneration of the blood vessels. The patient's recovery was uneventful and there has been no return of the goitre or the hyperthyroid symptoms. It is needless to add that where degeneration is present, surgical procedure is absolutely indicated.

CLASS 6.—L.B., female, single, 24 years of age. This patient consulted me February 26, 1917. She had a large goitre and enlargement of the heart with systolic murmur at the apex and base. She was very nervous and complained of continued diarrhœa. There were enteroptosis and distinct ileal tenderness. X-ray examinations showed a kinked terminal ileum and the cæcum in the pelvis. The appendix was kinked. The lower portion of the descending colon and the ileac sigmoid were atonic. The patient suffered so much discomfort from pressure that thyroidectomy was done and the right half of the gland and isthmus removed. However, the abdominal symptoms still caused great distress, and February 9, 1918, operation for intestinal stasis was performed. Marked diverticulated cæcum, ileo-pelvic bands and a chronic appendix were found. The cæcum was plicated and put back in normal position, the ascending colon anchored and the appendix removed. The patient's recovery was uneventful, and January, 1921, she reported that there had been no return of the goitre or the gastrointestinal symptoms.

Despite the fact that many early cases of goitre yield to medical treatment, marked systemic goitre is usually a surgical disease. When the gland can be detached without undue difficulty, it is generally abalated in continuity with the extirpated lobe. Almost two-thirds of the gland may be removed without unduly curtailing the parenchyma. Provided total extirpation is avoided and a sufficient amount of the thyroid left, a cretinoid condition does not result. One-fourth to one-half of the gland seems all that is required for normal functioning. Within the last few years goitre seems to be on the increase in this country. Whether this increase is due to the recent upheaval of war—the intensity of the struggle and the hardships endured—or to other causes

it is impossible to state with exactitude. It is well known that hyperthyroidism sometimes appears quite suddenly in an apparently normal person, as the result of a nerve strain or a great emotional stress. Hyperthyroidism developed in a large degree among the Russians who witnessed the Kishineff massacre and among victims of the San Francisco earthquake. Since it is evident that hyperthyroidism is on the increase, it is the more essential that we should emphasize the necessity for preventive treatment.

Hyperthyroidism, with or without obvious goitre, is frequently present in women during puberty, at the catamenial period and throughout gestation. This condition usually clears up when these periods are past, if there is no added overloading of the system with toxic poisoning and if no excessive demands are made upon the organism during these times. In a large proportion of cases the patient may be restored to a normal state by rest, topical applications of cold to the neck, the use of sedatives and other hygienic measures. However, if care is not exercised during these periods, the condition of hyperthyroidism may be prolonged with distressing results and the gland permanently injured.

While conceding the necessity for early operative procedure in cases of pronounced systemic goitre, we need to realize that there are lesser degrees of the condition which yield to medical measures. All possible toxic factors of each case should be investigated, since any one of these may have a definite bearing on the functioning of the glands, especially the thyroid gland. Early recognition of toxic conditions, whether from tonsils, teeth, sinuses or intestinal canal, may prevent many goitres from reaching the stage where surgery alone can be of benefit. Attention to all toxic phases of the system and a recognition of the importance of preventive régime may safe-guard the future of the patient by lessening ultimate pathology and the liability of future conditions demanding surgery.

34 Gramercy Park.

CAESAREAN SECTION.

By Dr. RICHARD D. SMALL, Portland.

From somewhere the tradition has come to us that our venerated ancestor, Julius Cæsar, approached this earth through the abdominal route. Unfortunately the tradition stops at this point, and we are left in the dark on the important phase as to whether the mother survived the operation, and also as to the cause of so radical a deviation from the accepted rule of nature. I say unfortunate, because, if the above facts could be known and it could be proven that the mother survived, it would at once become evident that the ancients were possessed of a very high knowledge of surgical technique, quite out of proportion to that which is known to have existed in the immediate centuries which followed. It seems probable, though, that there were no indications for Cæsarean section upon the living woman in those days, but that in such cases as are recorded, the procedure was practised upon a woman who died at or about term, or at least after the stage of viability.

That hysterotomy was one of the very early abdominal operations there can be no doubt, as there is every evidence that the philosopher, Gorgias, Scipio Africanus and Minilius were saved under Numa's law, which prohibited the interment of a woman big with child until her belly had been opened.

It is not known when the operation was first performed upon the living woman. A record occurs as early as 1491. Another in 1500, and in 1581 Rousset published a work detailing a large number of cases, all of which were successful. As a result of this work, hysterotomy upon the living woman is said to have become as prevalent in France as bloodletting, probably with such dire results to the mother that the pendulum swung vigorously in the opposite direction, and for a long time the operation was lost in well-earned oblivion.

During the seventeenth century little is recorded of the operation, although it is probable that an occasional case was done under Numa's law, and possibly a bold spirit may have hazarded it upon the living, but again in the eighteenth century we begin to note in the literature the report of a successful case, with an occasional spirited article protesting against the possibility of ever attaining a successful issue. It seems perfectly evident that the profession was continually weighing hysterotomy against symphysiotomy, with forceps application and craniotomy, the question, of course, being, which life in the individual case should be saved, and so during the last half of the seventeenth

^{*} Read before the Maine Medical Association.

century and the first of the eighteenth there was constant discussion between the champions of the two procedures,—the champions of Cæsarean section being obliged to admit that they frequently lost their babies, as well as the mothers, and the champions of forceps—and, of course, craniotomy—admitting that their record was none too good.

That the mortality under either choice should have been tremendous is, of course, to be expected, the wonder being that any survived when one considers the technique employed, for, as a rule, the Cæsarean cases were left many hours in unproductive labor before the procedure was elected, and then only after many vaginal examinations, and possibly tentative attempts with the forceps. And so one is bewildered in reading that in 1860, of one hundred and sixty-four cases of Cæsarean section, all of whom had been in labor from twenty-four to seventy-two hours, sixty-two were successful and one hundred and two fatal.

In spite of these favorable reports, Cæsarean section remained an operation of the gravest danger, entirely out of the domain of the average practitioner, and practiced only by the occasional dauntless surgeon who would not recognize defeat. Toward the dawn of antisepsis in 1869, for instance, it is said that Dr. Gilman, of Portland, bad and possibly reported a successful case of hysterotomy, the indication being a ruptured uterus. At about the same time, Dr. Thomas Foster reported an unsuccessful attempt in a case of labor complicated by fibroids, and in 1881 Dr. Stanley P. Warren reported an unsuccessful attempt in missed labor with stenosis of the cervix. The indication for the operation then, as formerly, was the narrow pelvis, so narrow as to preclude the birth of a living child (2½ inches conjugate). So far as I can discover, that was and remained the sole indication until the recent times of which I am to speak, except the occasional case where tumor formed a compelling dystoscia.

With the actual birth of asepsis, obstetrics and surgery took on a different aspect, and for the succeeding decade or two both advanced rapidly, though operative obstetrics lagged somewhat behind its companion. But sepsis was now disappearing where a rigid technique was followed, and forceps were marvelously successful from a stand-point of mortality, even though in individual cases the morbidity was considerable. It was found that serious damage could be done to the soft parts of the mother, and yet a fairly comfortably future could be assured, provided healing was uncomplicated. There yet remained, however, the problem of the dead child, the ever constant conviction that it was no longer a case of which should be sacrificed, but that both should be saved, and so the obstetrician gradually realized, from the tremendous success of the abdominal surgeon, that by adopting the

same principles the same success could follow the Cæsarean operation, that hysterotomy for pregnancy could be as safe as hysterectomy for fibroids; and he further determined that neither mother nor child should be handicapped in their future existence through the stress of delivery.

During the seven years from 1894 to 1901, twenty-one Cæsarean sections were performed in the Boston Lying-In Hospital, with the loss of one mother. In the following fifteen years, in this one institution alone, there was a total of four hundred and one cases, three hundred and seventy-seven mothers and three hundred and sixty-three babies being saved. In our own state from 1870-1900 I find no record of a successful issue, possibly due to late election and unsettled technique, but from 1900-1906, in a total of sixteen cases operated on by various surgeons, three mothers were lost, a mortality of about twenty per cent. It is since 1900 that the Cæsarean operation has proved its right to exist, and to-day it stands out as one of the most secure and safe procedures, when performed at the right time and under the right conditions. Now what are these conditions?

Naturally its scope has widened. The narrow pelvis is admitted as an indication. Also such complications as eclampsia and placenta previa. Both of these conditions remain about the most serious complications of pregnancy, and both occur during the last two months. Under conservative treatment, in eclampsia, about twenty-five per cent. of the mothers die and thirty-three to fifty per cent. of babies. Under the Cæsarean operation a larger percentage of babies are saved, though not all for obvious reasons, and the mortality of the mothers would be about the same. Eclampsia, however, is not an absolute indication. If seen early and treated faithfully, a very large percentage of cases can be brought through to delivery and safety under conservative measures, leaving for Cæsarean operation those cases which resist treatment, which are fulminating, and the cases which present a cervix so rigid and unyielding that successful birth through the vagina would be impossible. If done early in this class of cases, mortality is low.

And the same can be said of placenta previa. Here the maternal mortality is forty per cent., and the fetal mortality about sixty. Yet one would have to be an extremist to recommend Cæsarean section in all cases of previa, for experience teaches us that only the central variety carries the high mortality. In all other varieties we feel that we can succeed by delivery through the natural passages, all things being equal.

And so it is with tumors. We all recognize that pregnancy complicated with ovarian tumor offers a relative indication for Cæsarean section. Yet during labor tumors are frequently pulled up out of the way and offer no obstruction to the descent of the child. In fact, it may happen that the tumor is not detected until the child is born. It seems to me that in these cases the best procedure is to leave the decision until the onset of labor, or at least the end of pregnancy, when an elective section can be performed, or the operation may be done after a test of labor demonstrates the impossibility of successful issue.

And now there is another class of cases which we hear little about. but which none the less sometimes occurs and tests judgment to the very limit. I refer to the endocrine cases—the cases where the internal secretions go wrong. I have seen one such and I lost the baby by delay. A case has recently occurred in Boston where the obstretician, Dr. A. C. Potter, did not delay but lost the mother through Cæsarean section. The cases run along like this: The patient will weigh at the beginning of pregnancy, we will say, about one hundred and twenty pounds. She will take on flesh slowly and steadily in spite of careful diet, until at the end of pregnancy she will weigh about two hundred pounds. The flesh does not appear normal, and exercise is difficult and almost impossible. Often a history is given of painful and late menstruation. During the last week or two there is a failure of the uterus to cause the child to descend and the head to engage. At about the time that labor should begin there is an hour or two of contractions which avail nothing and then cease. In a few days there is another abortive attempt, when the os is unaffected after a few hours of contraction. And so it goes: Periodic attempts at labor, transitory and futile. Now, if left alone, the tenth month will pass, when the patient, as in my case, will send for you and describe the sensation of pressure exceedingly painful on the rectum. Examination will reveal the head low in the pelvis, and in due time a child will be born, dead for days at least. Now if you elect section at the end of pregnancy, as in Potter's case, you deliver the child alive, and here was the history of the mother. Paralytic ileus in three days, unaffected by enemata or pituitrin, and death in a week of toxæmia. Autopsy will show a uterus clean along the line of suture, no infection, but as large as it was when the operation ended. Absolutely no retraction has taken place. Fortunately the cases are rare; there is a physiological incompetence, and the outlook under any form of treatment is grave.

It is easy to keep on and enlarge upon the indications for Cæsarean section, most of which are relative, and must after all be left to the best judgment of the individual obstretician, for experience is now extensive and the operation itself very safe, and elective section without labor, at the time and under circumstances most advantageous for the

patient and operator, is surely an attractive field. For the patient it avoids the suffering and delay of parturition, and it does not encroach upon the time or disturb the rest of the operator.

The danger of Cæsarean section lies in this very point,—the ease with which it is done and the comparative safety to both mother and child, the danger being that it will be offered and insisted upon by enthusiasts when no real indication exists. It should never be elected in women with adequate pelvis simply because a child lies in the posterior position. Here a high forceps, should nature fail, even at the expense of a bad laceration, is to be preferred to an abdominal section, with the inevitable adhesions and the probability of a Cæsarean section with every succeeding pregnancy, although I confess that many times, when in the midst of one of these desperate pulls, I would far rather have taken the child by the easier abdominal route. My own record in these cases offers this: I have lost four babies through difficult high forceps operations. I subsequently confined three of these mothers successfully on one or more occasions, and the fourth was confined in New York by Craigin. None of these mothers suffered inconvenience from my initial failure to successfully deliver them, and I think that all of them would agree, now that they have their families, that they would prefer to lose the first child rather than submit to Cæsarean section with all the succeeding ones, and I personally feel that their future is more secure with a repaired and adequate peringum than with an abdominal scar.

From the very nature of things, in all cases where definite and positive indications are lacking, the obstetrician takes a great responsibility in advising an elective Cæsarean section. It is far better, where the lives of the mother and child are not clearly endangered, to avoid urging the operation. The results of the various procedures can be explained, but it is for the family to elect. It still is, and always will be, a major surgical operation, and should it be indiscriminately resorted to, as is unquestionably the case in some quarters, the future of this splendid operation will be jeopardized.

Sane judgment, not enthusiasm, must direct. I am convinced that the modern woman suffers not in comparison with her ancestors; that physically, nervously and mentally she is equipped to face the ordeal of motherhood, and given a chance, surrounded by all the safeguards of modern science, she can deliver herself, or be delivered through the natural passages, in all but the rare cases, where a mechanical obstacle presents or an abnormal condition suggests the greater safety of the abdominal route.

JOURNAL OF MAINE MEDICAL ASSOCIATION

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DOMESTIC QUARANTINE AND VENEREAL DISEASE.

"The migration of persons suffering with venereal disease from their home state to another state without first procuring from their local health officer a permit stating that their travel is not dangerous to public health violates the federal law, forbidding the spreading of contagious diseases and will be rigidly suppressed," says the U. S. Public Health Service.

"Last spring the Attorney General, at the request of the Service, instructed all United States attorneys to co-operate fully with it and to prosecute offenders vigorously. Since then several violators have been sentenced to reformatories, where their disease-spreading activities have been stopped and they themselves are receiving proper medical treatment.

"The law and the regulations based on it are not so widely known as they should be, and the objects sought in their enforcement are not everywhere clearly understood. The law seeks to control the spread of disease, but not necessarily to prevent the travel of venereally diseased persons. Such travel, if undertaken under proper precautions in search of medical help, will be encouraged by the Service. The law, however, seeks to close every channel through which venereal disease may be spread, and to do this it has been found necessary to put a stop to the movements of those who seek to migrate from one state to another in order more safely to carry on the business of spreading disease.

"When such persons and their associates learn that travel from one state to another while venereally diseased leads to arrest and severe punishment they will have an added incentive for submitting to voluntary treatment, and the day will be hastened when every infected person will at once place himself or herself under the care of a skilled physician of his or her own selection.

"At present it is probable that very many persons either never receive proper treatment or that they cease treatment too early, in the belief that they are cured, and thus become dangerous. Laws on this subject differ in the different states, and this fact leads to migration from those whose laws are rigid to those whose laws are less so.

"No attempt, either by the U. S. government or by state governments, to police the state borders, seems practicable. The laws of practically all states, however, require physicians to report all venereal cases that come to their attention, and a judicial or police investigation of the history of any apparent newcomer who chances to be arrested will early disclose most of the new arrivals in the state. These may then be proceeded against under United States law."

"Proceedings," adds the U. S. Public Health Service," are based on the Interstate Quarantine Regulations, whose making by the Secretary of the Treasury was authorized by Congress Feb. 15, 1893, (27 Stat., ch. 114, p. 449) amended March 3, 1901 (31 Stat., ch. 836, p. 1086)." Objections on the ground that the regulations are insufficient or defective or that Congress may not delegate its legislative authority are without merit. The Secretary's act in making the regulations is administrative and is authorized by the act of Feb 15, 1893. The penalty for violation is fixed by Congress, is legal, and has been sustained in United States courts. Details of the above are given in Reprint 693 of the U. S. Public Health Service, just issued.

Permits for travel obtained from the local health officer must state that the travel, in the opinion of the officer, is not dangerous to the public health. The traveler must state where he intends to reside, and he must agree in writing to report to the proper health officer there within one week after arrival and to continue treatment under a reputable physician until the health officer certifies that he is no longer infectious. The health officer who issues the permit must promptly notify the new health officer, who must take appropriate action.

MEDICAL CHARITY.

In another page of this issue will be found statements of facts relative to the physician's relation to public hospitals in compensation cases.

It seems an opportune time to clarify the meaning of medical charity. The word charity is easily defined, but when we say medical charity we must mean something more. If a patient is admitted to the wards of a hospital, and pays for board and nursing, he is not-receiving charity, but if he does not pay his physician or surgeon for services he becomes a charitable medical or surgical case, in the same manner as though he went to a local hotel and paid for his board and room, employed a nurse and expected a physician's services for nothing. No physician would do such an act with any other feeling than charity or imposition, and yet for years this view has not only dominated the lay body, but even some physicians serving on hospital staffs.

In every case where medical men have given their services gratuitously to the poor in hospitals it is medical charity, and has absolutely nothing to do with the services rendered by the hospital in the way of bed, board and nursing with or without pay. If the hospital sees fit to dispense state or public charity let it do so, but do not confuse it with medical charity. Many people believe that the staff is paid out of the state appropriations to hospitals and erroneously accept medical charity, and it is time that we not only disabuse the governing board of hospitals, but the public as well, of this fallacy.

When we realize that the Compensation Act has been in operation some years and provides that the physician shall be compensated for his services, and we have some hospitals in Maine governed by some antequated rules which states that the attending physician or surgeon cannot collect for services rendered, even when provided by law, it is time that we, as a body, wake up from our lethargy and insist that these institutions be run along modern lines.

The successful business concern is the one which is constantly modifying its methods of doing business to the present, and why should not hospitals do likewise, viz., discard all old rules or modify them to present conditions. The physician is the one essential unit without which the hospital could not exist. Why not look after his interest and see that he gets a fair deal. If the provisions of the Compensation Act are placed before the governing board of hospitals in the proper light, there will be no further cause for complaint.

INTERNATIONALIZING SERA STANDARDS.

Co-operation of the foremost laboratories of the world, including the United States, for the unification of international standards of antitoxic sera has been begun on a large scale by the League of Nations Health Committee, according to detailed plans received here to-day. Already two preparatory conferences have been held, the work divided amongst the various national laboratories, and the individual studies been begun.

The United States has agreed to co-operate in this work through the United States Public Health Service at Washington, and through the presence at the conferences of Dr. Rupert Blue, Assistant Surgeon General, stationed at Paris. German scientists will also take part, as well as Japanese and representatives of all the greater European medical services.

The work involved is considered of great importance to the medical world. Up to now there has been as much confusion in the various national standards of measuring the strength of antitoxic sera for diseases such as dysentery, tetanus, diphtheria, syphilis, meningococcus and pneumococcus as there has been in the different currency systems in the world.

This has had two serious effects. First, the American scientist, for instance, is handicapped in studying methods of treatment of various vital diseases abroad, because of the different standards of measuring the strength of the antitoxic sera employed; secondly, as international trade in sera is increasing, it represents not only an inconvenience, but a positive danger, to have their strengths listed at varying standards.

In order to obviate these difficulties, the Health Committee of the League of Nations began a series of studies last October, which resulted in an international conference at London in December, when some of the foremost scientists of the world came together to prepare plans for the first joint experimental inquiry of the sort ever attempted. A program was adopted whereby the study of the effects of the various standards was divided according to diseases amongst the various laboratories represented. To the Hygienic Laboratory at Washington, for instance, it was proposed to allocate the study of tetanus and diphtheria. As soon as these studies have been completed, they will be co-ordinated through the State Serum Institute at Copenhagen.

Other bodies which will co-operate in the work are the Medical Research Council of Great Britain, Pasteur Institute of France, State Institute of Italy, State Institute of Warsaw, Hygienic Institute of Basle, Pasteur Institute of Brussels, Kitasato Institute of Japan, as well as Austrian and German organizations.

BIRTHS AND BIRTH RATES IN THE BIRTH REGISTRATION AREA, 1920.

WASHINGTON, D. C., December 12, 1921.

The Department of Commerce, through the Bureau of the Census, announces that in the year 1920 there were 1,508,874 births reported within the birth registration area, which includes 23 states and the District of Columbia, the estimated population of this area on July 1, 1920, being 63,659,441, or 59.8 per cent. of the total population of the United States. The birth rate was 23.7 per 1,000 population, which is considerably higher than the rate (22.3) for the previous year, but is below the rate (25) for 1916, which may be looked upon as a more normal year, as it preceded the influenza epidemic and the entrance of the United States into the war.

For 1920, the highest birth rate (31.7) for the white population is found for North Carolina and the lowest (18.3) for California, while for the colored (which includes Negroes, Indians, Chinese and Japanese) the highest rates are 39.5 and 39.3, respectively, for Washington and California. The next highest rate for the colored (31.3) is for North Carolina. The lowest rates for the colored (disregarding the very low rates in a few of the New England States in which the Negro population is small) are for Kansas (17.1) and Kentucky (17.6).

Necrology.

CARROLL WHITE ABBOTT.

Waterville, 1855-1921.

Famous as being an active politician and a very successful Mayor of the City of Waterville in 1898 and 1899, Dr. Abbott passed away from the scenes of his enormous and successful labors from a medical point of view, on Thursday, the 10th of March, 1921. He enjoyed very largely the confidence of the people of Waterville and surrounding towns for several years, and as a result of his excessive labors to keep abreast with the stream of patients desiring his services, he fell into a desperate condition of diabetes some ten years ago. There would be times when he would fall unconscious for an entire day, and he would lie, as it were, almost dead, and yet again and again after such attacks he would rally and in a day or two he would get to work again as energetically as ever. He worked about as usual for his patients up to a few days before his sudden death, when he succumbed after an unconscious condition.

His birthday was August 29, 1855, at Rumford, and he was the son of Henry and Charlotte Augusta Abbott. He studied at the Oxford Normal and at Hebron Academy, and obtained his medical degree at the Bowdoin School in 1891. His graduating thesis discussed "Wounds and Their Treatment", and was a promising paper from a student of his age.

Directly afterward, Dr. Abbott settled for practice in Albion, succeeded, married there Miss Georgia Anna Wilson, daughter of Dr. Wilson of that village (Bowdoin, 1856), and after a while he removed to the larger field of Waterville, where he had even greater success. I do not find him reading any papers before our own Association, but he was an active member of the Kennebec County Society, and of private medical societies as well. He is survived by a widow and a son, Henry Wilson Abbott, who has taken up successfully the guiding reins of his genial and active father.

J. A. S.

LEONARD OWEN BUZZELL.

Standish, 1849-1921.

Dr. Buzzell, of Standish, died on the 6th of June, 1921, as a result of injuries received some weeks before from falling off of the roof of the ell of his home. The chimney in the ell caught fire from an overheated kitchen stove. He hastily put up a ladder and scrambled on the roof with a bucket of water to pour down alongside the chimney. In doing this he made a misstep, fell heavily to the ground some fifteen feet, and broke the left scapula. Although the injury, by itself, was not a serious one, his bodily health had been weakened for some months previous to the accident, and after long suffering he died. As he expressed himself daily, "I do not feel much pain anywhere, but I am worn out all over."

This active member of our Association was born in Dayton, November 18, 1849, studied at Westbrook Seminary, was graduated from Tufts in 1879, attended one course of lectures at the Bowdoin Medical School, and finally obtained his medical degree at Dartmouth in 1882. He settled at once at Kittery Point, where he enjoyed an extensive rural practice in the colder portions of the year, and was crowded with medical labors during the summer visitors' period, in midsummer. He married about this time Miss Hannah Buzzell, of Dayton, and is survived by her and two children.

After eleven years he removed his practice to Lebanon for three years, and in 1896 settled for the remainder of his life, some five and twenty years, in Standish. He was a steady practitioner of medicine, had great success with his pneumonia and typhoid patients, and was a great student of medicine and of out-of-door nature. He was a quiet man in his ways of life, but always affable and accessible to all who wanted to obtain a share of the knowledge which he had gained by his careful studies in out-of-the-way by-paths of learning. He served the people of Standish twice in the State Legislature and was a good citizen, as well as a reliable country doctor. What higher title could he wish for as he passed along into oblivion?

J. A. S.

Correspondence.

WORKINGMAN'S COMPENSATION ACT IN ITS RELATIONS TO MEDICAL CHARITY

I wish to call the attention of every member of the Association to Section 10 of the Workingmen's Compensation Act of the State of Maine, 1921. I think it will be for his interest to read it carefully, as I am certain that all physicians are not familiar with its provisions.

"SEC. 10. Medical aid paid by employer first thirty days after accident, or date incapacity begins and time may be extended by Commission.

During the first thirty days after the accident the employer shall promptly furnish reasonable medical, surgical and hospital services, nursing and medicines and mechanical surgical aids when they are needed. The amount of such medical, surgical and hospital services. nursing, medicines and mechanical surgical aids shall not exceed one hundred dollars unless a longer period or a greater sum is allowed by the Commission, which, in their discretion, they may allow when the nature of the injury or the process of recovery requires it. In case the incapacity does not begin at the time of the accident the thirty-day period shall commence at the time such incapacity begins. Whenever the employer and the employee are unable to agree upon the amount to be allowed for such medical, surgical and hospital services, nursing, medicine and mechanical surgical aid, the amount shall be fixed by the Commission upon petition of either party setting forth the facts. In case of emergency or for other justifiable cause the employee shall have the right to select a physician other than the one provided by the employer, and the reasonable cost of his services shall be paid by the employer subject to the approval of the Industrial Accident Commission. Such approval shall be granted only when the Commission finds there was such emergency or justifiable cause, and in all cases that the services were adequate and necessary and the charges reasonable."

It is very plain that compensation is provided in this act for every physician, under certain restrictions, who attends one of these accident cases. It has been the custom in many localities where there are large hospitals to send all these cases to these institutions, where they are admitted for the most part as ward cases, and the attendant physician or

surgeon has been deprived of his legitimate fee because of the rules of the hospital that physicians cannot collect fees from ward patients. The employers and insurance companies have taken advantage of this to their own profit and have deprived the physicians and surgeons of thousands of dollars which they have legitimately earned, paying to the hospitals scarcely the board of the patient and a few accessory charges for X-ray and operating room fees. This is entirely unjust to the physician to be compelled to do a service for charity which the law specifically provides for payment by the employer or the protecting accident company. According to the hospital rules governing ward cases, I believe that the physician is well within his rights when he sends his bill for services to the employer or insurance company. He is not collecting a fee from the patient, but from the employer or accident company, which the law says is liable and shall pay. In at least one large hospital in the state the superintendent has made this ruling, and the physicians on the staff are collecting their proper fees. I believe it is the duty of the Maine Medical Association to insist that all physicians in all hospitals shall have the right to collect their legitimate fees provided for under this act, whether the patient occupies a private room or the ward, and that if any physician is deprived of this right we should stand behind him with all the resources of the Association. Knowing of this abuse, I feel it my duty as your Secretary to call it to your attention.

BERTRAM L. BRYANT, Secretary.

January 27, 1922.

Law Offices of
PATTANGALL AND LOCKE.
Soule Building, Market Square,
Augusta, Maine.

February 3, 1922.

Dr. Bertram L. Bryant, 265 Hammond Street, Bangor, Maine.

Dear Dr. Bryant:—I return herewith your proposed letter to members of the Medical Association in regard to the Workingmen's Compensation Act. The position which you take is legally sound and it would seem to me justified. The free treatment given ward patients by hospitals has no legal connection with your services to the patients chargeable to the employers under the Workingman's Compensation Act.

As a practical proposition, I might suggest that in view of the previous custom, as indicated in your letter, it would be well for each phy-

sician to notify the employers in his vicinity that he proposed to insist upon his fees under the Workingman's Compensation Act in any future cases of this nature. This would avoid any claim of misunderstanding on the part of the employers and the Insurance Companies.

Yours very truly,

PATTANGALL AND LOCKE.

The Committee on Public Relations has carefully considered the Secretary's comment and commends his high sense of duty in placing this matter before the members. This state of affairs has caused dissatisfaction, not only with the medical men but with the better insurance companies, who naturally reason that when the physician is paid for his services he will render better work and the period of disability will be shortened; also, by members of the Commission who want to see the provisions of the law fully complied with.

It is time that some steps be taken to correct the present violations of this law by institutions, and we suggest that all complaints be sent to the Secretary, with facts, etc., so that steps may be taken to correct them.

DR. S. J. BEACH, Chairman, Portland,

Dr. T. E. HARDY, Waterville,

DR. R. D. SMALL, Portland,

DR. E. D. MERRILL, Foxcroft,

Dr. F. Y. GILBERT, Portland,

CLARENCE KENDALL, Augusta, Dr. B. L. Bryant, Secretary, Bangor,

Committee on Public Relations.

MIDWINTER CLINICS, MAINE PUBLIC HEALTH AND MAINE MEDICAL ASSOCIATIONS AT EASTERN MAINE GENERAL HOSPITAL AND BANGOR CHAMBER OF COMMERCE, FEB. 2021, 1921.

PROGRAM FOR PHYSICIANS AND SURGEONS

AT EASTERN MAINE GENERAL HOSPITAL

BY

Dr. Fred B. Lund, Visiting Surgeon, Boston City Hospital.

Dr. Channing Frothingham, Visiting Physician, Peter Bent Brigham Hospital.

Dr. E. G. Abbott, Orthopedic Surgeon, Children's Hospital, Portland.

Dr. Lawrence Reynolds, Roentgenologist, Peter Bent Brigham Hospital.

Visiting Staff Eastern Maine General Hospital.

Monday, February 20.

9.00 A. M-12.00 M.

Surgical rounds, operations and demonstrations. Medical rounds, case demonstrations on ward.

2.00-4.00 P. M.

Venereal clinic and treatment demonstrations. Laboratory demonstrations.

4.00-5.00 P. M.

Short talks and open discussions by visiting physicians.

6.00-7.30 P. M.

Buffet lunch at Tarratine Club, for physicians. \$1.00.

8.00 P. M.

Open meeting with the Maine Public Health Association at Bangor Chamber of Commerce.

Tuesday, February 21.

9.00-11.00 A. M.

Surgical operations and talks.

10.00 A. M.-12.00 M.

Medical case demonstrations.

2.00-3.00 P. M.

Lecture and X-ray demonstrations.

3.00-5.00 P. M.

Orthopedic clinic and talks on fractures.

8.00 P. M.

Social meeting at the Bangor House, followed by banquet with the Penobscot County Medical Society. \$1.50

"The Future Relationship of the Nursing and Medical Profession", Dr. Eugene R. Kelley.

"Relation of the Cults, Osteopathy and Chiropractic to General Medicine", Dr. Channing Frothingham.

"An Ancient Conflict between Poetry and Anatomy," Dr. Fred B. Lund.

SPECIAL PROGRAM, 8.00 O'CLOCK, MONDAY EVENING, FEBRUARY 20.

OPEN MEETING WITH THE MAINE PUBLIC HEALTH ASSOCIATION AT BANGOR CHAMBER OF COMMERCE

Chairman-Dr. E. D. Merrill, President Maine Public Health Association

Presentation—The Health Plan for Maine.

Address—"What Organization Can Do to Reduce the Death Rate," Dr. Donald B. Armstrong, Executive Officer, National Health Council, New York.

Address—"The Importance of Vital Statistics," Dr. Clarence F. Kendall, Commissioner of Health, Maine.

General Discussion.

PROGRAM FOR PUBLIC HEALTH NURSES

AT

BANGOR CHAMBER OF COMMERCE.

Monday, February 20.

Exhibits of Child Welfare, Tuberculosis and School Nursing at the Chamber of Commerce, all day.

Visits to Fresh Air School.

Visit to Sanitorium.

These visits to be arranged by nurses at Chamber of Commerce. 8.00 P. M.

Open meeting with Maine Public Health Association and Maine Medical Association at Bangor Chamber of Commerce.

Tuesday, February 21.

9.00 A. M.-12.00 M.

"Child Welfare Work a Preventive Measure," Dr. Eugene R. Kelley, Commissioner of Health, Mass.

"Nutrition Work with Under-Weight Children," Miss Woods, Boston Dispensary.

"The Effect of Posture on the General Health," Dr. E. G. Abbott, Portland.

2.00-5.00 P. M.

"The Public Health Nurse and Mental Hygiene," Miss Harriet Bailey, Bangor.

"Preventive Measures for Mental Disorders," Dr. Carl J. Hedin, Bangor.

"Dental Care of Children of Pre-school Age," Dr. F. E. Maxfield, Bangor.

"Dental Hygiene in Relation to Health," Dr. Archer Jordan, Lewiston.

Remarks by Dr. Channing Frothingham, Boston, and Dr. Fred B. Lund, Boston.

8.00 P. M.

Banquet at Bangor House with Maine Medical and Maine Public Health Association.

Addresses.

County News and Notes.

KENNEBEC.

KENNEBEC COUNTY MEDICAL ASSOCIATION.

The Kennebec County Medical Association held its annual meeting at the Y. M. C. A., Augusta, Jan. 4, 1922.

The following officers were elected:-

President, John S. Milliken, of Readfield.

Vice-President, Ralph L. Reynolds, of Waterville.

Secretary and Treasurer, Herbert W. Hall, of Augusta.

Censor, P. S. Merrill, of Waterville.

Delegate to Maine Medical Association, George A. Coombs, of Augusta; Alternate, J. D. Nutting, Jr., of Hallowell.

Four new members were admitted: Curtis W. Dyer of Augusta, transferred from Somerset County Medical Association; Elmer H. Jackson, of Augusta, transferred from Aroostook County Medical Association; George H. Coombs, of Augusta, formerly of Knox County Medical Association, and Blynn O. Goodrich, of Waterville, McGill, 1920.

The Association voted to accept the insurance proposition offered by the Hartford Accident and Indemnity Co.

H. W. HALL, Secretary.

YORK.

YORK COUNTY MEDICAL SOCIETY.

The first meeting this year of the York County Medical Society was held in the Common Council room in City Building, Biddeford, Thursday, January 5.

The forenoon session was opened at 11.30 o'clock, Dr. P. S. Hill, of Saco, the President, in the chair. The minutes of the October meeting were read and approved.

The report of Dr. C. G. Dennett, of Saco, the Treasurer, was as follows: Cash in treasury Jan. 1, 1921, \$118.95; receipts for year 1921, \$315.00; expenditures for year 1921, \$346.31. Cash in treasury Jan. 1, 1922, \$147.64. This report was accepted.

It was voted to adopt an amendment to Sec. 2, Chapter V, of the By-Laws, so that it shall read: "The annual dues shall be \$5.00 and shall be payable on January 1st of each year."

Mr. E. S. Thompson, of Portland, representing the Hartford Accident and Indemnity Company, explained the plan of group policy liability insurance.

Dr. Arthur L. Jones, of Old Orchard, gave a review, "Ten Years as Secretary of the York County Medical Society." On motion of Dr. D. E. Dolloff, of Biddeford, a rising vote of thanks was given to Dr. Jones for his services as Secretary since January, 1912.

A nominating committee, Drs. F. E. Small, Biddeford, J. D. Haley and J. D. Cochrane, Saco, was appointed by the President to prepare a list of candidates for the various offices for the ensuing year. The committee reported the following nominees. President, Dr. Arthur G. Wiley, Bar Mills; Vice-President, Dr. Samuel G. Sawyer, Cornish; Secretary, Dr. Arthur L. Jones, Old Orchard; Treasurer, Dr. Carl G. Dennett, Saco; Censor for three years, Dr. Caleb J. Emery, Biddeford; Delegate to Maine Medical Association for three years, Dr. David E. Dolloff, Biddeford.

The Secretary was instructed to cast the vote for these nominees, which was done, and they were declared to be elected.

Dr. C. B. Sylvester, of Portland, Councilor for the First District, spoke favorably in regard to liability insurance, and, on motion of Dr. A. G. Wiley, it was voted that we, as a medical society, approve the plan of liability insurance and co-operate with the Maine Medical Association in this matter.

Dinner was enjoyed at Hotel Thatcher, following which the afternoon session was opened at 2.00 o'clock, Dr. Wiley, the newly-elected President, presiding.

Dr. Richard D. Small, of Portland, was the first speaker, and his interesting subject, "Cæsarean Section," was presented in an able manner, and considerable discussion was evoked. On motion of Dr. P. S. Hill, a vote of thanks was given to Dr. Small.

Dr. Addison S. Thayer, of Portland, President of the Maine Medical Association, brought the greetings and best wishes of the State Association and made a plea for harmony of action between the State Medical Association, the component county medical societies, and other allied organizations, such as the Maine Public Health Association.

Dr. J. D. Cochrane, of Saco, reported the serious illness of Dr. Eugene D. O'Neill, of Biddeford, whose condition has caused much anxiety for several months. Dr. Thayer also spoke concerning Dr. O'Neill. On motion of Dr. F. E. Small, of Biddeford, it was voted that a letter of sympathy be sent by the Secretary to Dr. O'Neill.

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Physiotherapy

The remarkable results secured in the treatment of our wounded soldiers by the various physiotherapy methods used in the U. S. Reconstruction Hospitals have attracted national attention. The value of physiotherapy has been so clearly demonstrated that the U. S. Government has equipped many of the U. S. Public Health Service Hospitals with apparatus for use in physiotherapy.

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The Secretary spoke of several other members who are ill, and, on motion of Dr. B. F. Wentworth, of Scarboro, it was voted that flowers be sent to all members who are confined to their homes by illness.

Dr. H. O. Chesley, of Dover, N. H., presented the subject, "Some Abdominal Problems with Roentgenological Diagnosis." Several X-Ray lantern slides were used, with excellent effect, to illustrate various pathological conditions of the stomach, gall bladder, colon and appendix. Dr. Chesley's presentation of the subject was of special interest and highly instructive. He was given a rising vote of thanks.

Dr. Sylvester spoke of many complaints that have been made, in reference to the nursing situation in various parts of this State. Industrial, municipal, insurance, Red Cross, and Public Health nurses have been charged with doing too much medical and surgical work on their own initiative and responsibility. Drs. Kinghorn, of Kittery, Stimpson, of Kennebunk, and Ferguson, of Biddeford, made remarks in opposition to such practice on the part of some nurses.

Dr. Wiley, the President, appointed as the committee on Public Health and Legislation, Dr. Paul S. Hill, Saco, Dr. Jos. W. Gordon, Ogunquit, and Dr. Arthur J. Stimpson, Kennebunk.

Notwithstanding that it was a stormy day, there was a good attendance of members and guests. The following were present: Drs. A. S. Thayer, R. D. Small, C. B. Sylvester, Portland; C. W. Blagden, Sanford; H. O. Chesley, Dover, N. H.; A. G. Wiley, Bar Mills; J. W. Gordon, Ogunquit; B. F. Wentworth, Scarboro; A. J. Stimpson, Kennebunk; C. W. Kinghorn, Kittery; C. J. Emery, M. H. Ferguson. H. W. Hurd, F. E. Small, D. E. Dolloff, C. F. Traynor, G. C. Precourt, Biddeford; J. D. Cochrane, J. D. Haley, C. E. Thompson, P. S. Hill, C. G. Dennett, Saco; J. A. Randall, A. L. Jones, Old Orchard; Mr. E. S. Duggan, Dover, N. H.; Mr. Earle S. Thompson, Portland.

The meeting was adjourned at 4.30 P. M.

ARTHUR L. JONES, Secretary.

Note.

INCOME TAX IN NUTSHELL.

WHO? Single persons who had net income of \$1,000 or more, or gross income of \$5,000 or more. Married couples who had net income of \$2,000 or more, or gross income of \$5,000 or more.

WHEN? March 15, 1922, is final date for filing returns and making first payments.

WHERE? Collector of internal revenue for the district in which the person lives, or has his principal place of business.

HOW? Full directions on Form 1040A and Form 1040; also the law and regulations.

WHAT? Four per cent normal tax on taxable income up to \$4,000 in excess of exemption. Eight per cent normal tax on balance of taxable income. Sur-tax from 1 per cent to 65 per cent on net incomes over \$5,000 for the year 1921.

NEW AND NON-OFFICIAL REMEDIES.

During January the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

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OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association.

All papers, case reports, etc., should be typewritten when possible.

Proof-sheets will be sent to the author when requested.

Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

Vol. XII.

MARCH, 1922.

No. 8

*CONSIDERATION OF SOME OF THE PROBLEMS OF ACUTE MECHANICAL ILEUS.

By F. H. JACKSON, M. D., F. A. C. S., Houlton, Maine.

Van Buren, in a recent article on acute mechanical ileus, makes the following statement: "Subject to certain exceptions, it might be stated as a corollary that, if the case is really one of acute mechanical ileus, the longer the patient lives with it before operation the sooner he dies afterwards." This is a fair statement and will be agreed to by those who have had a reasonable amount of experience with this grave surgical catastrophe, in fact, the operative mortality is so high that one wonders not why does it persist but why does it exist? No matter how the symptoms of this trouble may vary in order of their intensity or their development, one thing is positively certain, the subsequent pathological changes are of a progressive and constant type.

While it is not the purpose of this paper to go in detail into the subject of chronic obstruction, it is a matter of fact that an acute block is often imposed upon the chronic type and from that point they will be considered together. When any undue work or strain is placed upon an organ or tissues either one of two things happens, the organ or tissue breaks down or else a compensatory hypertrophy takes place. The latter usually obtains in the case of obstruction of the chronic type, up to a certain point. The patient goes on in a more or less miserable condition for a varying period of time. Finally an acute block occurs and the patient comes to operation poorly equipped to undergo the ordeal,

* Read before the Maine Medical Association, June 29, 1921.

both on account of the obstruction and the primary disease causing it. The acute type of ileus is usually ushered in in a most dramatic manner with oftentimes little or no warning. The syndrome of severe abdominal pain, it may be localized or general, profuse vomiting, more or less collape, meteorism and absolute constipation have a diagnostic meaning of extreme gravity. These facts are of common and everyday knowledge, yet at times it seems as if they were forgotten, and time, most valuable time, wasted in temporizing with drugs and foolish and useless attempts to open the bowels. It is within the first twentyfour hours that operation offers the maximum opportunity for recovery to the patient, provided that certain vascular changes have not taken place in the obstructed loop or is causing the block, until finally the critical period is reached, which is usually about the end of seventy-two hours. At this time dehydration is more complete, circulatory and gross tissue changes have taken place in the obstructed loop, prostration is more marked, the patient shows plainly the effects of the absorption of the poisonous toxins from the involved intestine and the clinical picture is one of extreme gravity. Not only is there, at this time, a great increase in the technical difficulty in establishing the continuity of the intestine, but a corresponding decrease in the ability of the patient to withstand such major surgery; in fact, at this time an emergency enterostomy, to attempt to tide the patient over for a more favorable opportunity, may be the only safe, sane and sensible procedure to carry out.

It certainly seems very much worth while to remember in any case presenting the symptom complex of ileus, unless one is positive that a mechanical obstruction does not exist, that cathartics by mouth are contraindicated. I am perfectly well aware of the many cases of acute abdominal pain that are permanently relieved by a dose of morphine followed by a brisk aperient. I am also well aware of the fact that a positive diagnosis in many cases is difficult, in many cases an exact one is impossible, but I personally feel that if one can, and will, make the diagnosis that operation is indicated that we need feel no chagrin if our anatomical orientation has not been as positive and exact as that exhibited by some gentlemen in the literature, at least. Quite some controversy exists as to the use of morphine in these cases. I think that we will all agree that it is not the first and only dose of morphine that does the harm. Many times these patients, when first seen, are suffering excruciating pain; a sufficient amount of morphine to give the patient a little relief cannot be objected to and seems to me a sensible procedure. It is, however, the senseless repetition of the drug, with the resulting dependence by both patient and physician upon the false sense

of security obtained, that does the harm. Agonizing pain, if prolonged over a period of hours, can certainly reduce a patient to a condition of collapse or shock, call it what you will, but it is far from a theoretical condition and it is playing safe and using good judgment to prevent such a thing. Likewise in the attempt to move the bowels. As has been said before, this should not be attempted with drugs, yet it is astounding what some industrious and enthusiastic therapeutists hope for and strive to obtain in this condition by means of salts, castor and even croton oil. I remember seeing one very pronounced case—the distended loop with its exaggerated peristaltic wave could easily be made out through the abdominal wall—where the attending physician, being discouraged by the futile attempts following numerous doses of magnesium sulphate, proposed to the family that as a last resort he would try quicksilver. A carefully given enema, in a case of suspected ileus, can do no harm. The important point to remember is that coincident with the evacuation that may occur from the lower bowel the patient obtains no permanent relief. The pain, the vomiting and the meteorism are not relieved, and it is at this point that many persist in going against the dictates of ordinary common sense; they begin the use of cathartics by mouth. Under ordinary conditions, if we employ a moderate and sensible dose of morphine, give an enema, hot pack the abdomen and obtain no relief within an hour or two, then one must certainly consider very seriously the probabilities of a mechanical ileus, unless we can reasonably rule out causes of the adynamic type. main question that we have to consider—and it makes no difference whether the patient is at home or in a hospital, whether the condition is a primary one or has followed operative interference—has the patient a mechanical block in his intestinal tract? If it cannot be answered as emphatically as one might wish for, then an exploration must be made without waiting for the so-called classical signs and symptoms of some writers, which are, in matter of fact, not the symptoms of ileus but of its terminal state. There is a form of obstruction—I have seen a number of cases before and after certain severe types of appendicitis (it occurs chiefly in children)—that give a lot of trouble in way of pain, distension, etc., but without the extreme gravity of the complete blocks. They seem to be due to more or less angulation of the intestines by lymph, are usually in the lower ileum, are, of course, aggravated by the paresis of the intestine that occurs with the existing peritonitis, but they do not do well if mechanical separation of the distended loops is preformed. This may appear to be giving an opinion contrary to one previously expressed regarding operation, but the fact remains that these patients do not do well if operated upon. With the subsidence

of the peritonitis and the absorption of the lymph the trouble is over. The cases, however, are not to be confused with that type where the obstruction is due to either constricting bands or adhesions which must be operated upon. I might also say at this time that I have operated upon several cases of obstruction following appendicitis, where inversion of the stump had not been performed and an obstructing band had formed at this point with serious results.

Discussing a paper read before this association at the 1919 meeting in Portland, by Dr. Walter M. Spear, on "How to Reduce the Mortality Rate in Cancer," Dr. John F. Thompson, of Portland, made the following statements: "Cancer in the abdominal cavity. In the vast majority of cases no diagnosis is made until there is a palpable tumor, and the presence of that tumor is the death warrant of the patient in 99 per cent. of all cases and perhaps more." Speaking of operability he states: "My own feeling is that we had better err on the safe side, that many cases which at first we are inclined to regard as inoperable may be subjected to operation with the hope of ultimate cure of the disease." Concerning Dr. Thompson's statements we unfortunately must say they are true. I have never yet had the opportunity to do anything more than a palliative operation on any case of malignancy of the large bowel that came to me on account of the obstruction. Every single one of them had either metastases in the liver or on the rectal shelf, which, of course, means let them alone. It is, however, hardly conceivable that the growth of an intestinal cancer can be so insidious that neither patient nor physician are aware of any serious trouble until the onset of a more or less acute and complete intestinal block. It is hardly reasonable to ask one to accept such an idea, and the unfortunate fact is that these symptoms do exist, but a correct interpretation of them is not made. The patients are allowed to drift on, a prescription given for the constipation or the diarrhoa, as the case presents, when a careful physical examination, which most certainly includes an X-ray examination by a competent radiologist, might give one a very helpful clue. I have had two cases of acute obstruction engrafted on a chronic process where radical operation was done successfully at one operation, yet I candidly admit that such opportunities are uncommon, for I feel with my colleague, Dr. Risley, that the two-stage operation in many cases of obstruction is far the more correct procedure.

The first case was a woman about forty. She was brought to the hospital critically ill from an acute obstruction of some twelve hours' duration. The woman was so sick a very good history was not obtained, but it was apparent that she must be operated upon at once. A large mass could be easily made out in the region of the head of the

colon. She gave a history of having had attacks for a number of years, and they were increasing in frequency and severity, of severe paroxysmal abdominal pain, accompanied by nausea and vomiting, with more or less distension and constipation. The usual exposure of the ileo-colonic segment was made and a large mass found occupying the entire area. There were no evident metastases in the liver or glands on the rectal shelf. The mass looked and felt malignant. The intestine proximal to the obstruction had practically no edema of the walls; in fact, the compensatory hypertrophy in the chronic cases often seemingly prevents this for a time, so it was felt that a radical one-step operation was indicated. The lower ileum and the colon up to the hepatic flexure was removed and union made by side to side with suture. The mass was examined by Dr. Frank B. Mallory and found to be a hyperplastic tuberculosis. During her convalescence examination showed a tuberculous lesion of the right lung. The patient made a very good recovery from her operation, but as to the ultimate outcome regarding the tuberculosis of the lung I do not know.

The second case was a woman of sixty-eight, with a history for the past year or so that was most suggestive of cancer of the head of the colon. I hardly think that anyone would have given it much of any other thought. She came in for the obstruction and presented a clinical picture that would satisfy the most exacting. Exploration showed a large mass at the head of the colon with no liver involvement or disseminated glands. Radical removal was done at one operation. The report of the growth was made by Dr. H. E. Thompson, of Augusta, who pronounced it an adenoma of the large intestine. This opinion was concurred in by Dr. A. C. Broders, of the Mayo Clinic. Adenoma of the large intestine is a very short step to adenocarcinoma, but these two cases simply bear out the advice given by Dr. Thompson—unless given a chance by operation the outcome is certain. We had better err on the safe side.

Many times the patient with obstruction is too ill to give one a very intelligent idea as to previous operations or mode of onset of the attack, but often a little hint may give one a very valuable clue. About a year ago, through the kindness of Dr. H. E. Small, of Fort Fairfield, I operated upon a very interesting case. About eight years previous to his present illness he had an appendectomy performed, from which he obtained very temporary relief. Following the appendectomy he had his abdomen explored within two or three years, and a chronic gastric ulcer, with adhesions to the liver, were found by that operator. The adhesions were released but nothing done to the ulcer. He went on about as usual, having periodic gastric attacks that were decidedly

characteristic if only one took the trouble to ascertain the cause, until finally he had a gastroenterostomy performed. Again he had relief for a short time, but his stomach troubles returned, only he now had attacks with vomiting and some distension. These attacks increased in severity and frequency until finally he came down with an obstruction when I saw him. He was decidedly a sick man, vomiting a dirty tarry material, had been hiccoughing for thirty-six hours despite all remedies to check it, was distended, his bowels had not moved in some thirty-six hours. Exploration showed a bewildering mass of adhesions, which were finally straightened out. The gastroenterostomy had been made much lower down on the ileum than is usual, an almost complete twist, contrariwise to the clock, had occurred just below the picking up of the intestine, and he had a marginal ulcer at the gastroenterostomy opening that was on point of perforation. To bring things to normal required a resection of the small intestine and a piece of the greater curvature of the stomach. I was unable to find any signs that there had ever been an ulcer of the pylorus. The patient made a slow recovery, finally left the hospital with a return of the gastric symptoms. He was X-rayed by Dr. Lamb, of Portland, but nothing could be found in his intestinal tract. This man had been very frankly told the probable nature of his trouble, but stood hard against any such thing. From Dr. Lamb the patient went to the Mayo Clinic, and while visiting there this winter I went over their findings. His stomach and intestinal tract were examined very carefully and nothing found. He had an increased cell count in the spinal fluid, his Wassermann was four plus for the spinal fluid and negative for the blood, and he was referred back with instructions to have very intensive salvarsan treatment begun at once. He died on his way home.

All cases of obstruction, even if seen early and operated upon without delay, are not amenable to cure. The nature of the obstruction may prevent it, and I have had two cases where I could do nothing but close up the abdomen. These were of that fortunately rare type, thrombosis of the superior mesenteric, with resulting gangrene of the small intestine. Such cases are, of course, hopeless and fortunately do not often occur. As Dr. Risley is taking up the operative side of the subject in detail I want only to refer to a few points. If we can get into the abdomen early, before gross tissue and vascular changes have taken place, then a restoration to normal is quite possible. The operation may only consist of the cutting of a band or adhesion, the untwisting of a volvulus or some equally easy procedure. We may, however, be obliged to do an operation of an exploratory nature, not only to ascertain the cause of the trouble, but to see what can be done to tide our

patient over, and this procedure may consist of an enterostomy done by a small catheter as high above the block as one can get under a local anesthetic. The question of a radical one-step operation must be determined upon after conditions are shown and the ability of the surgeon to cope with the situation. I do think most emphatically that the aftertreatment of any case of ileus is a very important thing, and the surgeon who leaves the care of such cases to house officers and men of limited experience will have a higher mortality than if the opposite obtained. It is just as important that the right thing be done following operation as during it. These patients are in poor shape. They are toxic, dehydrated, they have more or less peritonitis, and they require careful attention for a number of days. One of the most important things is that they should have rest and to give it to them requires the use of opium. The theoretical objection to this drug has been raised by men who have had no experience with it or do not know how to use it. If we have a catheter drain in the intestine far more gas or feces will come through it than would occur to one who has not seen such a thing. A spontaneous or induced bowel movement, of gas or feces, will not take place until the peritonitis is subsiding and the poisoned, distended muscular wall of the intestine regains its tonicity. What these patients need is a continuous drip of glucose and bicarbonate solution, with as little pressure on the container as is possible, massive and continuous hot packs to the abdomen, and the much abused drug, opium. The proper hot pack is not a little dab of flannel placed on the abdomen and allowed to cool. It is a massive pack of hot flannels, kept hot by an electric pad or hot water bottles, and is continuous.

We might say, in conclusion, that the apt statement of our honored colleague, Dr. Seth C. Gordon, "Conservatism is saving lives, not organs," means that conservatism in ileus means early diagnosis followed by early operation. If a diagnosis is uncertain, explore.

*THE VALUE OF THE TWO-STAGE OPERATION IN SURGERY.

By EDWARD H. RISLEY, M. D., Waterville.

It is undoubtedly true that we are to-day experiencing rapid strides in many branches of medicine. These advances are brought about in various ways; through the research laboratory, through the reported results of the study of large numbers of cases by groups of men specializing in various fields of medicine, and lastly, and perhaps least, but nevertheless, in a most important way, by the clinical experience of each individual man and his efforts to improve his own end results. The general surgeon to-day avails himself of the vast experience of such clinics as the Mayo's and profits by the study of results in large groups of cases coming from the hands of the specialist.

The follow-up and end result system, now so generally used in our larger hospitals, is as important to the individual surgeon in his private practice as it is in the public hospital. In order to improve the character of our surgery and reduce our mortality statistics, we must know what our end results are.

I wish to present for your consideration one of the methods for improvement of operative results brought to our attention largely through knowledge gained from end result systems, namely, the two-or multiple-stage operation as a factor of safety in many regions of the body where the operative results through the one-stage operation were formerly of fatal or uncertain outcome. The problem will be considered largely with especial reference to acute intestinal obstruction.

The question involved is not whether the surgeon can do what is necessary to be accomplished at one sitting, but rather a question of judgment as to the safety of such a procedure as against a practically assured safe outcome when the more conservative two- or multiple-stage procedure is used. The most skillful or the boldest surgeon is by no means the most successful from the point of view of recovery of the patient. A judgment of when not to operate is often of much greater value than the boldness to skillfully do an ill-advised operation. The same reasoning applies to the decision for or against the two-stage operation. The man of sound judgment refrains from doing what he could technically accomplish so easily at one sitting in favor of the more conservative policy of making assurance doubly sure by resorting to a procedure which is now becoming more and more definitely recognized as a principle of good surgery.

^{*} Read before the Maine Medical Association, June 29, 1921.

The kind of case most frequently demanding a decision for the two- against the one-stage operation is, of course, the emergency type of case, in which the diagnosis may not be entirely clear, but in which the operative indications are definite, and these are most often cases of the acute abdomen in which the question of intestinal obstruction largely enters. One is generally able, in the early diagnosed and carefully considered interval case, to plan his operative procedure so that a two-stage operation is not necessary. This is not always so, however, for there are many conditions, such as unlocalized brain tumor, malignant disease of the colon, or of the rectum, in which the two-stage procedure has such decided advantages as to now be definitely standardized as the operative method of choice. But in the emergency type of case, careful planning is not always possible, and resort is more often to be made to less complete procedures in order to save the life of the patient. If the rationale and value of these procedures are more thoroughly understood, it is believed that a substantial reduction in mortality can be brought about, especially in the treatment of acute intestinal obstruction.

Before taking up in more detail the question of intestinal obstruction, let us consider briefly other regions of the body in which the twostage procedure is indicated.

Traumatic lesions of the skull, dura and brain are always of an emergency nature and are relieved generally by the one-stage procedure. But chronic conditions producing intracranial pressure, whether definitely diagnosed as brain tumor, with accurate localization, or not, are often best treated by a preliminary decompression and limited exploration of the brain. In the case of unlocalized brain tumor, the second operation is performed to accomplish the removal of the now partially extruded tumor. This procedure is especially indicated in cases where exploration of important areas of the brain would result in definite physical impairment of a considerable degree, while the two-stage procedure, taking advantage of the extrusion of the growth by release of intracranial pressure and giving it a path of least resistance, will result in the minimum amount of cortical damage.

This same principle applies with equal force to certain inaccessible tumors of the cord where laminectomy is indicated. Most gratifying results are often obtained in these cases by this procedure.

The thyroid offers a situation where a carefully planned two-stage operation may often be the means of saving a critically ill patient. I refer to the preliminary pole ligation of the thyroid blood supply under local anesthesia, which is often performed as an emergency operation, and which is also at times most valuable as an indicator of the amount

of reaction to be expected from the patient to the later major procedure. These thyroid cases are often most critical and most difficult to handle, and any procedure, such as preliminary pole ligation, which can stay the progress of the disease even a little, or turn the tide in the right direction, is of inestimable value.

The chest is more and more presenting a definite field for the multiple-stage operation. This is, of course, the method of choice in lung abscess, in which we do a preliminary thoracotomy, stitching the lung to the chest wall in order to allow the formation of adhesions at this point, which shall effectually wall off the general pleural cavity from later contamination by pus when the abscess cavity is opened at the second sitting, some five to seven days later. Surgery of the chest is making rapid strides to-day, and operations previously followed by an extremely high mortality are now being brought to a successful conclusion by the use of intra-tracheal positive pressure anesthesia and the multiple-stage operation.

The abdomen is that region of the body in which the greater number of uncertain diagnoses are inevitable, and where the greater number of emergency operations are required, in which the surgeon is often placed face to face with extremely difficult problems to solve, and when good judgment as to the procedure best to follow is productive of the greatest saving of life or of later physical impairment.

A discussion of the facts in regard to acute intestinal obstruction should be of vital interest, not only to the surgeon but to the general practitioner as well, because of the alarmingly high mortality still present in this disease in spite of very earnest efforts in the past few years to reduce it.

In other acute abdominal conditions, such as appendicitis and cholecystitis, such improvement, both in early diagnosis and in operative procedures, has taken place that our mortality in those conditions is now respectably low, but acute intestinal obstructions still carry a mortality of from 50 per cent. to 95 per cent. or more, which obviously is an indication, either that we do not diagnose and operate these cases early or correctly enough, or that we yet lack some fundamental knowledge about these cases, the possession of which would change this gloomy picture into one that the surgeon could look upon with more hope of relief from his operative efforts.

In acute intestinal obstruction we have a mechanical condition which it would seem possible to relieve by the mechanical measures available to surgery, and yet this is rarely so. Advances have undoubtedly been made so far in operative technic, but they have, nevertheless, but slightly reduced the mortality. Patients die of acute

toxemia due to the rapid absorption of the intensely poisonous material retained in the obstructed section of the bowel, or to a general sepsis in the cases operated late when the patient's resistance is greatly lowered.

Different types of obstruction must be recognized. The most common cases are those after appendectomy, with drainage or after pelvic operations in women, and generally occur during the first few weeks of convalescence. This, therefore, is a type of case in which early diagnosis and early operation should be made, because the patient is at that time under observation and any unusual symptoms can be detected early, and, as a matter of fact, the mortality in this type of case has been lowered from 60 per cent. to about 40 per cent. because of this one factor of early diagnosis and early operation alone. We believe that the lesson to be learned from this type of case is a pointed one and will probably show us the way to better results in other groups.

Cases of obstruction from old bands or adhesions, due to undiagnosed and old inflammatory conditions, or of congenital origin, and cases where there has been no previous operation, are harder to diagnose because of the absence of an abdominal scar, which would point to the probable site of adhesion, and the mortality in this group is consequently higher because the cases are diagnosed late and come to operation late—another bit of evidence pointing to late diagnosis and late operation as the greatest probable cause of high mortality.

With this brief statement of the evidence at hand to show the tremendous importance of early diagnosis and early operation as a means of reducing a shockingly high mortality, let us consider what other factors of technic the surgeon may call to his aid to better his results.

The question of pre-operative treatment and of anesthesia is of great importance. It has given me a great deal of satisfaction to hear Dr. Jackson emphasize so strongly and unhesitatingly the dangers of trying to move the bowels by drugs in these cases. His warning is a most timely one. If the surgeon can get these cases on the faintest suspicion of obstruction, and if the method Dr. Jackson warns against can be given up in favor of early surgical consultation, I feel very sure that a great improvement in our mortality will take place.

The ideal anesthetic has been found, in the large clinics, to be local or spinal anesthesia, provided the obstruction is not above the umbilicus. In favorable cases, local anesthesia plus gas oxygen may be used, but a purely local anesthetic is by far the most desirable from the point of view of avoidance of shock and of the patient's immediate convalescence and eventual recovery. Cases given the benefit of this form of anesthesia show a definitely lower death rate than those given ether.

As a preliminary to general anesthesia, it is absolutely necessary to wash out the stomach of cases with regurgitant vomiting. Even this procedure does not always prevent inhalation pneumonia, from which so many of these cases die, because under ether, even though the patient may not actually vomit, fecal fluid may regurgitate through the relaxed cardiac sphincter and the same result takes place. This is still another reason for the employment of local anesthesia whenever possible. Operation should be preceded by a generous dose of morphia and an enema to cleanse the lower bowel as much as possible.

When the surgeon is confronted with a case of intestinal obstruction, he must plan his operative procedure upon the consideration of the following cardinal facts:

- 1. The duration of the obstruction and the general condition of the patient.
- 2. The type of obstruction diagnosed, and the probable condition of the circulation of the bowel.

If the history and physical examination show him that he has an obstruction of only a few hours' duration, if the condition of the patient is good and the distension is not extreme, he is justified in planning on a one-stage operation with the expectation of finding and relieving the obstruction and returning his patient to bed in good condition.

He may operate for relief of obstruction only, such as for separation of bands or adhesions, untwisting of a volvulus, or reduction of an inter-susception; and in this uncomplicated type of case, when the integrity of the bowel is not in question, the one-stage operation is generally indicated and productive of a fairly low mortality. These are the cases in which early diagnosis has been made and the obstruction relieved before any appreciable amount of toxic absorption has taken place or the viability of the gut has become impaired. When, however, these latter two conditions have taken place, the problem confronting the surgeon takes on an entirely new aspect and the mortality practically doubles. And in this type of case the surgeon must carefully consider three things: (a) The case is suffering from toxic absorption, and, therefore, drainage should be his first consideration; (b) the viability of the gut is in question, therefore resection in addition to drainage may have to be resorted to; but (c) the patient at this stage will stand very little operating. What, therefore, is the procedure surest to give drainage and tide the patient over his acute stage? We all know that laparotomy for acute obstruction, in strangulated hernia cases, plus resection and end-to-end anastamosis, is followed by a nearly 100 per cent. mortality. We must, therefore, resort to a safer and more certain procedure.

In the patient with small intestine obstruction of more than eight to ten hours' duration, the indication should invariably be for relief of obstruction plus drainage of the bowel by ileostomy or cecostomy. In all but the very early cases, drainage is the thing that is needed above everything else; even the relief of the obstruction is oftentimes of secondary importance in the late cases.

The selection of the site of drainage is an important one. Summers recently advocated before the American Surgical Association the deliberate selection of the jejunum as the most desirable point of drainage in all acute cases, when the location of the obstruction was not definitely indicated by the history or physical examination, and he quoted evidence to show that in most cases of obstruction the intestinal tract could be divided into three segments, upper, middle and lower, the lower being more or less collapsed, the middle containing the gas and distension, and the upper containing the highly toxic fluid. To tap anywhere but this reservoir of fluid was not effectively draining the obstruction. It is believed that this is a logical first-stage procedure, and, if carried out, especially in our late cases, would result in the saving of many lives hitherto sacrificed to more radical procedures.

The technic of this first-stage enterostomy under local anesthesia is as follows: Select quickly a distended loop of small intestine containing fluid—and this is most likely to be upper ileum or jejunum—place two rubber-covered intestinal clamps six inches apart, grasp the bowel with two Alles forceps about four inches apart, hold these taut; incise the bowel for two inches with a sharp knife down to, but not through, the mucosa, separate the peritoneal and muscular coats from the mucosa, place a purse-string Pagenstecher stitch at the upper end and incise the mucosa within in, introduce a medium soft rubber catheter, tighten the purse-string, sew the rest of the intestinal incision over the catheter partially burying it, attach to parietal peritoneum.

There is no danger of soiling from this method, and a quick, effective means of drainage without trauma is accomplished. This artificial fistula closes spontaneously later after the obstruction has been relieved. This procedure we believe should entirely supplant the former trauma-producing and intestinal-paralyzing one of milking out the contents of the obstructed loop or of threading many feet of intestine on a long glass or metal tube in order to empty it of its toxic contents. Such rough handling of many coils of already partially paralyzed intestine, and necessitating evisceration, probably does immeasurable harm by causing further paralysis of the bowel, besides

adding greatly to the amount of shock. The method is unphysiologic and unnecessarily traumatizing, and should be abandoned.

If the obstruction has reached the stage where peristalsis is completely and permanently abolished, nothing can save the patient; but, if there yet remains the slightest peristaltic action, the performance of an enterostomy, with as little trauma and exposure of the bowel as possible, relieves the loop of bowel in which the opening is made, and will encourage the gradual emptying of other proximal loops that still have sufficient peristalsis left to expel their contents.

Therefore, if we recognize the necessity of primary drainage, of the great importance of avoidance of unnecessary trauma, and that the relief of acute intestinal obstruction is rarely to be accomplished in one stage, we have adopted a method which, if consistently carried out, will greatly reduce our mortality.

Having drained our intestine largely of its toxic content, we have tided our patient over his acutest emergency, and now have him in condition at a second operation, twenty-four to seventy-two hours later, to go in to the abdomen and search for and relieve his obstruction. If he survives his drainage operation, he will in all probability survive the more leisurely undertaken second operation. If he does not survive his preliminary drainage, he certainly would not have survived any one-stage procedure yet used.

The worst type of case is that in which resection of devitalized gut is indicated, and here, again, we would disagree with the usual routine of most surgeons who try to do a resection and anastamosis at one sitting. The results of any large series of cases show that the mortality in this procedure is, as above stated, nearly 100 per cent., whether done by the masters of surgery or those of lesser experience.

The reader has recently advocated and carried out successfully a two-stage operation in all cases of strangulated external hernia where the viability of the intestine was such as to necessitate resection. The procedure is briefly as follows: Taking a strangulated femoral hernia as a type case, under local anesthesia a generous skin incision, freeing as much as possible and opening of sac; excision of necrotic or redundant part of sac, stretching of femoral ring with small retractors in order to pull out damaged intestine and bring healthy gut into view (and this stretching of the femoral canal is a most important part of the technic, and sufficient room can generally be obtained without the necessity of cutting either Pouparts' or Gimbernats' ligament, and thus avoids the possible later sloughing of these ligaments and weakening of their much needed support in the later repair of the hernia); resection of devitalized intestine outside of the femoral ring, and tying into

the healthy ends two Mixter drainage tubes, application of dressing, and putting patient to bed. One to two weeks later, after patient is in good condition, again under local anesthesia freeing of adherent ends of intestine from femoral ring, pulling out enough healthy intestine to do an end-to-end anastomosis outside of the ring, which is again stretched to allow sufficient room, cleansing and replacing anastomosis within the abdomen, radical cure of hernia, with a small drain to the superficial tissues only.

Six recent cases done by this technic, which affords the much needed primary drainage by a non-traumatizing and non-shocking operation, have saved lives which we feel sure would have been sacrificed by the usual intra-abdominal one-stage operation.

As in strangulated hernia we should not be concerned with the repair of the hernia until we have rescued the patient from the danger of immediate death from toxemia by our preliminary drainage, so in acute intestinal obstruction within the abdomen the relief of the obstruction may even often be a secondary consideration and can await until the patient is out of danger of death from toxemia. The absolute necessity for immediate drainage should overshadow all other considerations in these late cases. The repair of a hernia, the resection of a malignant colon, a volvulus, or even an intersusception, can await the placing of a patient in a condition to stand such a procedure, and, when acute obstruction recurs in these cases, the major procedure should always be subordinated to the fundamental principle of preliminary drainage. Our plan should therefore be, in cases of acute obstruction, to drain first by a non-traumatizing preliminary operation done under local anesthesia, to be followed by a carefully planned second-stage procedure as soon as the patient has sufficiently recovered from his toxic state to allow of it.

This method we believe has now become practically standardized in the more or less acute obstructions due to malignant growths of the colon. Given a case of unsuspected carcinoma of the sigmoid, which first shows itself acutely in the form of a rather sudden onset of severe obstruction, the old procedure used to be to explore, resect, and anastomose at one sitting. The mortality was so extremely high that surgery was in bad repute in the treatment of these cases. But by the adoption of the multiple-stage procedure that gloomy picture has been changed, for we recognize first the danger of submitting the patient with any obstructive symptoms to a shock-producing operation; we therefore explore, do a cecostomy or colostomy, and, as soon as the patient has recovered from his toxemia, we do a carefully planned resection, and an anastomosis, which does not leak because of the pres-

ence of the safety valve at the eccostomy or colostomy opening. The patient makes a fine recovery, and his artificial anus either closes spontaneously or is later closed by a very simple operation under local anesthesia.

The above illustrations, I believe, are pointed enough to convince one of the great value of the multiple-stage procedure as perhaps the most important factor of safety in dealing with these cases.

Operation should be based on suspicion rather than on certainty of diagnosis. The policy of watchful waiting should be given up, for the patient in fair condition changes so quickly into one which is hopeless that we have no right to wait for the cardinal symptoms of obstruction. If we delay and then expect to cure our patient by a one-stage operation, our mortality will continue at its present high level; but if we diagnose and operate early, while the case is yet in good condition, or judiciously use such a minor procedure as enterostomy under local anesthesia in the really desperate cases, we will soon find our mortality steadily dropping to what should perhaps be considered normal limits for such cases.

SUMMARY

The important points which we would especially emphasize in placing this subject for your consideration are the following:

- 1. Improvement in mortality in many of the desperate emergencies of surgery is accomplished largely by a study of end results.
- 2. A carefully planned two- or multiple-stage procedure is now becoming standardized as the method of choice in many regions of the body.
- 3. In acute intestinal obstruction early diagnosis and early operation are probably the most important factors in reducing the present high mortality. Operation should be done on suspicion rather than certainty of diagnosis.
- 4. The resort to the two-stage procedure in the more desperate cases effects the absolutely necessary preliminary drainage and reduces the mortality to a marked degree.
- 5. We are inclined to believe, therefore, that in acute intestinal obstruction the solution of the problem depends not on some knowledge which we do not already possess, but rather upon early diagnosis and the uniform resort to the life-saving multiple-stage operation.

*PROSTATISM.

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The prostate gland is a sexual organ, partly glandular, partly muscular, situated in front and below the bladder, and completely encircling the prostatic urethra. It is likened by anatomists to a truncated cone, with its apex resting on the posterior layer of the triangular ligament, and its base bearing up the floor of the bladder. In size it approximates a small horse chestnut, and it is pierced from apex to base by the last portion of the urethra.

The function of this most important gland is threefold, muscle, sensory organ and gland. So important is its role in the sexual life that Keyes has aptly labeled it the sexual heart. As a muscle it controls ejaculation; as a sensory center it is closely associated with the verum montanum and prostatic urethra; as a gland it furnishes a vehicle for the spermatozoa which keeps them active for a period of several days.

John B. Deaver, in introducing his most valuable treatise on this subject, says: "It is a remarkable thing that any part of the human body liable to such important pathological changes as the prostate gland should have acquired a conspicuous place in surgery within such comparatively recent years. Its very existence was unknown until the beginning of the sixteenth century, and it is only in the short space of a decade that its operative surgery has been deemed of sufficient magnitude to require exposition in monographs of any size."

Looking back on the history of anatomy and surgery we find that the discovery of this gland is attributed to one Niccolo Massa, a Venetian, who lived about the middle of the sixteenth century, and one Riolanus, also of this period, was the first to conclude that a swelling or overgrowth of this gland could so obstruct the bladder that urination would be seriously interfered with. From this time on various procedures, ranging from tunneling the gland with catheters to removing of obstructing portion with the knife, have been resorted to, but it has been only within the memory of most of us that anything definite in the way of radical surgery has been perfected and results worthy of being called permanent obtained.

For the purposes of this paper we can omit the embryology and development of this gland, dismiss the anatomy and physiology with the few remarks, which have preceded, and turn directly to the impor-

^{*} Presented by invitation at the annual meeting of the Oxford County Medical Society.

tant point which gives the prostate its prominent place in urological work.

It is not any cessation or perversion of function that we are customarily called upon to regulate; it is not that there is invasion of microorganisms that require surgical intervention; but, due entirely to its POSITION, pathological changes in this gland materially interfere, not with its own functions, but at a time when its own function is of little importance, with the function of far more vital organs, the kidney and bladder.

Prostatism may be defined as a pathological condition, adnomatous or sclerotic in origin, of the prostate gland, causing urinary obstruction. In looking over the etiology of this disease we find age of senility as the most prominent factor. Authorities have arbitrarily set the age of prostatism at fifty years, but certainly we find senile changes well matured in much younger patients, showing plainly that the condition must have started in the early forties. Infrequent cases much younger than this have been reported, but, practically speaking, they do not occur. In my own practice forty-six is the youngest patient that I have operated on for retention due to prostatic obstruction, and I have catheterized a man who had his first retention at the ripe age of 102.

Regarding the frequency with which this condition occurs it is difficult to make any statement, as undoubtedly many cases succumb to other maladies where no mention is made of an underlying prostatism; moreover, many cases of enlarged glands do exist where no apparent obstruction to bladder evacuation is noted. Thompson states that of men reaching the age of sixty, 34 per cent. show pathological hypertrophy of the prostate gland, and of these at least 20 per cent. suffer from prostatism. Keyes agrees with him.

It is doubtful if occupation has much bearing on the condition, for our patients come from all walks of life, and we see the hard-fisted farmer from our rugged state and the rotund city dweller side by side with the day laborer and the financier, all struggling with their prostatic malady. In spite of this fact we find some pointing an accusing finger at high living and a sedentary life as an etiological factor, and claim pelvic congestion, as demonstrated by hemorrhoidal tumors, which often coexist, may be prominent as a cause. I feel they have mistaken cause for effect.

Probably the most common question put to the urologist, both by the profession and the laity, is, "Doctor, what is the cause of this condition." After carefully reviewing the literature, I have come to this conclusion. It is a most interesting subject for discussion, but we are no nearer solution to-day than we ever were. Several theories of note have been advanced and each has its supporters, who have added evidence galore, but nothing has been proven to the satisfaction of all, and we are obliged to take our choice of theories, or admit we do not know.

General arteriosclerosis has been advanced, and many eminent men hold strongly to this theory. Certainly we admit age as an important factor, but the aged are not always sclerotic. We find enlarged prostates in men with no apparent general arteriosclerosis, with arteries of the man of thirty, with no great elevation of blood pressure, and kidneys in no way impaired if we can rely on our functional tests. Certainly statement that prostatism is a local manifestation of a general condition of sclerosis is not borne out by facts. Truer to my way of thinking would be the statement that prostatism, with its obstruction of a vital function, and its predisposition towards chronic toxemia, might be a factor in the production of arteriosclerosis.

Overindulgence in sexual relations, gonorrhea, and sexual errors, as masturbation and withdrawal, have all been accused under the head of the inflammatory theory. This has been seized upon by the different men, and some, like Morton, accept it without reserve. Deaver remarks concerning it: "It is at present the easiest solution of a much vexed question, but I am not so sanguine as to its being final." After collecting statistics from a large number of cases Keyes absolutely refutes the gonorrheal part of the theory. I feel certain that most operators find very few strictures in the urethras of prostatics, and it seems reasonable to suppose if this condition was even influenced by gonorrhea, that the percentage would be much larger. As to overindulgence in sexual relations, it seems that this theory is reasonable. but about the time we accept its probability we come across a case of this type. On Sept. 20th of this year I removed a very large adnomatous prostate from a man of seventy-three. He was a very sincere and painstaking old bachelor, and made his statements with such straight-forwardness that I could not help thinking he was entirely truthful. He assured me that he had attempted intercourse but on one occasion during his lifetime, and that on account of pain experienced he never did so again. Regarding masturbation he very frankly said that when a boy he had done so on a few occasions, but took no pleasure in the act, and understanding it was harmful, soon gave it up. I found him to have a small penis with a prepuce covering the glans. The opening of the prepuce was so small that I gained entrance to the meatus by using a ureteral catheter with which I relieved his acute retention. His prostate, which I subsequently removed, was the size of a small orange, and entirely adnomatous. Surely sexual function,

abused, could not have been a factor in his prostatism. Velpeau and Thompson suggest that there is an analogy between the prostate and the uterus, and that the fibromata of the uterus is comparable to enlargements of the prostate. Keyes refutes this theory with the statement that neither in development or structure is there any relation between the two organs, and that the growth of the prostate is fundachanges with cessation of function as do the ureterus and female mentally adnomatous—not fibromatous. However, he goes on to state that "whatever conclusion is reached in this most obscure matter will be based on the fact that the prostate tends to undergo retrograde changes with cessation of function as do the uterus and female breast." Personally I feel that neoplasm or involution will account for most of our cases, and while chronic inflammation may be a factor in fibrous conditions of the bladder neck, I cannot give it the importance that some writers attribute to it.

To better illustrate the changes taking place in prostatism we may for practical purposes divide our hypertrophies into two main classes, according to the density of the growth. In the first we include all of a soft, spongy character, and these we find to be almost invariably of the adnomatous type. They may attain a very large size, and are relatively fast growing. Case reports up to fourteen ounces in weight are a matter of record. The largest in my practice has been slightly over six ounces, and in size nearly filled a pint preserve jar. I trust that I do not run into a larger, as I felt that all the pelvic structures were being removed before I separated the last section from its owner. Altho fast growing, strange to say, the period between the time of first symptoms to final retention may extend over several years, and the size of the growth and the trouble caused the patient may be out of all proportion. Adnomatous glands may contain true neoplastic growths within themselves, and are subject to carcinomatous degeneration. It is from this type of gland that the so-called mediam lobe hypertrophy originnates. It always springs from one of the lateral lobes. Pedunculated tumors usually are of this class. I have found them so loosely connected to the main hypertrophy that they act exactly like a ball valve, falling over and completely occluding the vesical orifice when the patient attempted to empty the bladder. In the second class we include all growths of the fibrous or hard type. The density varies from the hardness of cartilage to the rather large growth of pure prostatic stroma, and they are of a slower growing nature than the former. However, the trouble caused by them is usually of much shorter duration and they come to catheter life or operation at a much earlier age. Many authorities hold that this type is more of an atrophic process than

an overgrowth, and we find that in many of these cases this appears to be rational reasoning. Fibrous prostates are usually small, and as a distinct type we meet with tough bands of hard tissue constricting the bladder neck, where it is impossible to clinicly distinguish much prostate substance. Gland size marks no criterion to the amount of annoyance to the patient or obstruction to the urinary stream. In fact, I feel that if any statement were possible we would be safer in saying that the smaller the gland the more trouble it may cause.

It will not be necessary to go minutely into the histology and microscopic pathology of the different types of gland changes, but leaving this interesting subject, turn directly to the more practical feature of direction of growth. To fully understand this, let us briefly recall our relational anatomy. Below, anteriorly, we have the posterior layer of the triangular ligament, and the perineal structures. Above, anteriorly, we find the pubic arch. Below, posteriorly, we find the rectum, and above, the bladder cavity. All enlargements or new growths tend to extend in the line of least resistance. Therefore we may expect our prostate to displace the least resistant structures. This we find to be a fact, and most of our growths extend toward the rectum or protrude into the bladder cavity. The former are most easy to diagnose by rectal palpation, and the large, rounding mass easily felt by the finger leaves no doubt to the examiner where the trouble originates. The latter presents more of a problem, as many show nothing on rectal examination, and only by the cystoscope can the cause of the trouble be accurately determined. Through this valuable instrument the projecting lobes can be seen and the post prostatic pouch examined for calculi, which are occasionally present.

Notable changes in the prostatic urethra occur. The adnomatous growth of large size elevates the urethral orifice at the bladder neck, lengthens the entire urethra, causes a dilatation of the prostatic portion, and increases the normal curve so that a catheter with the so-called prostatic curve is required to gain entrance to the bladder without perforating the gland. The hard fibrous growths bring about a contracture of the prostatic urethra, and in some cases produce a constricting ring about the bladder neck. Both types bring about changes in the upper urinary tract due to obstruction to the urinary stream. The bladder changes its general shape, becomes trabeculated or sacculated. Diverticulæ may be formed or enlarged, and infection and irritation, resulting from organisms or urinary decomposition, set up a cystitis of varying severity. The end results are that either a condition of atony is produced, or in cases where inflammatory symptoms have been marked, perivesical thickening produces a condition of pseudohyper-

trophy and our bladder becomes thickened and contracted. If much pus is present the urinary salts may form calculi. These changes extend to the ureter and kidney pelvis and unless relieved ultimate destruction of the renal parynchyma, by back pressure, may cause death from uremia.

Symptoms of prostatism may or may not occur before any marked obstruction takes place. Many cases are not aware of the condition, so insidiously do the changes make their appearance, until some indiscretion brings on an acute retention, or the overflow of the bladder, with dribbling results. Invariably, however, we can by close questioning obtain a history of frequent urination, extending over a variable period, but there is nothing which alarms the patient, as unfortunately it is a lay belief that as one grows older this is a perfectly normal occurrence. Usually it is the nocturnal frequence which, attracting attention, sends the patient to the physician, and the daily urgent call is entirely disregarded. In other cases disagreeable symptoms are present from the start of the trouble. These may take the form of difficult and frequent urination, at times painful and burning. The more the patient strains the less able he is to relieve himself. The stream is hard to start, has no force, and beyond the control of the patient to stop, until such amount is passed to relieve the bladder. Acute retention may occur after any indiscretion, but true incontinence never results. The so-called incontinence of prostatics is always due to the overflow of a distended bladder, and should not be confused with a paralytic condition. Bleeding from the prostate is a fairly common symptom. It is not indicative of malignancy in the majority of cases, but comes from ulceration of the mucosa, trauma by calculi, or rupture of small vessels by straining. Sexual symptoms occasionally occur, and we see cases where irritation of the prostate and posterior urethra produces a false increase of the sexual appetite, which may lead to overindulgence with little satisfaction to the patient. The patients may be much depressed mentally by the continued irritability and his efforts to satisfy the desire. Generally speaking the reverse is true, and the sexual appetite is diminished or lost.

Morton divides his prostatics into three main classes. It appears to me to be a distinct aid in tabulating the cases as to symptoms, and I will outline it briefly.

CLASS 1—PREMONITORY STAGE.—This is characterized by frequent urination and difficulty in starting the flow. Reflex polyuria may be present and is most noticeable at night. There is no residual urine.

CLASS 2—Stage of Insufficiency.—Partial retention is present,

and feeling of unsatisfaction after urination is due to a varying amount of urine retained constantly behind the obstruction.

CLASS 3—STAGE OF INCONTINENCE OR STAGE OF DILATATION.—The normal capacity of the bladder has been exceeded, and a state of dilatation is present. Urination is very frequent or dribbling is present. The patient may be obliged to wear a urinal, and his invariable complaint is that he makes water too freely. Constitutional symptoms are always present.

The picture of a prostatic of this last type is one of chronic toxemia. It is so well known to the profession that its mere mention is sufficient.

The treatment of these cases may be divided into two main classes, palliative and radical. During the first stage much may be done in the way of relief for the time being, but unfortunately we see very few of this type. This is especially true of the urologist, as most of the cases are well into the second stage before his services are sought. Before residual urine has occurred, general hygienic measures, dilatation of the urethra with sounds or Kollman dilator, careful attention to the diet and bowels, and hot sitz baths will do much to relieve pelvic congestion and prevent acute retention. However, with the most careful attention to proper hygiene the second stage usually supervenes, and we are concerned with a very potent factor, which, if neglected, will slowly and insidiously, but nevertheless certainly, seriously impair the vital function of the kidney. This is residual urine. It is the amount which remains in the bladder after the patient has passed all that his obstruction will permit. The amount varies from one ounce to several quarts. It is surprising what a large amount a patient will carry continually and not realize it. I have had physicians as patients who were carrying nearly three pints residual urine. This can be removed by catheter only. Palliative treatment at this stage must recognize daily catheterization as part of the treatment, the frequency to be determined by the amount of residual urine. Many of these cases do well; indeed, aside for the inconvenience, might go on indefinitely were it not for two reasons.

The first is the ever present infection. All cases become infected, usually during the first week. Ordinarily the type is mild, and frequently the patient becomes somewhat immunized to his own infection, but occasionally we see a severe case with death resulting in a short time. Hexamethylenamine and acid sodium phosphate in appropriate dosage are the backbone of our urinary antisepsis. In an acid medium free formaline is liberated in the urine and bacterial growth inhibited. Education of the patient in the use of the catheter is good theory, but

most lay minds, unfortunately, do not readily grasp the facts of asepsis, or at least prefer to disregard them, and we find too frequently that our efforts are wasted. The most flagrant case of this type I recall was an old one-armed tin peddler, whose prostate was malignant. To see him reach in his overalls for the catheter and lubricate with the ever-present saliva certainly was a lesson in sepsis. Yet he lived for several years.

The second great trouble with the catheter is that we find many men unable to use it, and that there comes a time in most prostatics when it is difficult or impossible for the physician to use it for them. These cases, if left to themselves, come to complete retention when their physical condition has been greatly impaired. It is this class of cases which the urologist is called upon to relieve by radical surgery in order to save the patient's life. I feel very strongly that our great difficulty in the past has been that most cases have postponed the inevitable so long that the operator has not been given a fair chance. Even with our successes I think earlier operation would have added time to the patient's life. Radical operative interference offers the patient the best chance of living the remainder of his life free from the danger and annoyance of his trouble. Prostatic surgery has made such rapid advance in the last few years that we are able to say truthfully to our patients that by assuming a rather slight risk they may be relieved of their trouble.

Looking back on the dark past of this class of surgery we find abandoned such mutilating procedures as vasotomy and castration. Bottini cautery is a matter of history. Chetwood's operation and Young's punch are no longer considered, and the trend of surgery has been toward complete removal of all portions of the obstructing gland.

Modern operation recognizes three distinct approaches to the gland in their technique. The first is termed—intra-urethral prostatectomy. It attempts to remove the prostate through a perineal incision in the urethra. For small growths it is practical in the hands of an expert, and I have seen some excellent results. Its great drawback is the danger of hemorrhage and incontinence.

Proust and Young adhere to the extra urethral approach. The urethra is incised along the membranous portion, and by special retractors introduced through this into the bladder the prostate is pulled down into the perineum, and through incision of the capsult the lobes are removed. Its danger is injury to the rectum, incontinence and hemorrhage. Young reports excellent results, but we are not all as skillful as Young. I sent him one case of a man of sixty-two who did not take kindly to suprapubic work. Dr. Young removed his prostate suprapubically. I do not know why, but he attempted a perineal and

abandoned it. It has been my experience to see such a following of urethro rectal fistulæ, perineal fistulæ and incontinence of urine following this operation in the hands of some of our best operators that I do not care for the procedure at all.

The third radical operation chooses the suprapubic approach. I feel very strongly that in the hands of the operator of average skill it offers the most reasonable method yet devised for complete removal of the gland. The approach injures no vital structure; the incision exposes the parts to the operator, and after removal of the gland the hemorrhage can be definitely controlled. Its great criticism has been the amount of shock which the patient has experienced. At present we have to a great extent eliminated this by the two-stage operation. Complete removal of the prostate by the suprapubic approach, by means of the two-stage operation, offers all of the advantages of any other procedure and eliminates most of their disadvantages. Moreover, it offers in ordinary cases a short, quick, anesthetic, which I consider a distinct advantage. Added to this it permits a digital examination of the obstructing mass before its removal. It offers to the patient a complete relief from his retention and residual urine, and to this it adds an indefinite period to recuperate his physical condition preparatory to final removal of the gland. Results are most pleasing to the patient. We get no cases of incontinence, no fistulæ, and while the period of convalescence may at times be prolonged by slow healing of the incision, I feel that it is worth it to the patient to be sure if he comes through all right he can forevermore forget his trouble.

The technique is very simple. Under novocain anesthesia, locally applied, the incision is quickly made above the pubic bone down to the bladder. The extra peritoneal fat and peritoneum are pushd back from this organ, and the bladder incised and a large drainage tube inserted. Stay sutures are introduced into the bladder wall and the organ firmly brought up to the rectus muscle. A small rubber or gauze drain is placed in the pre-vesical space and the incision closed. The patient may now be allowed to recuperate and his general condition brought back to par. Time is of no importance as compared to getting the patient into the best physical condition possible. The period of preliminary drainage may be extended indefinitely with comfort to the patient, and I frequently have found it necessary to let a patient leave the hospital and return home for one to six months' rest before completing the work. This is facilitated by the use of a smaller drainage tube and rubber urinal, and at present I have two patients who get along so nicely with their tubes that they do not care to have the final work done. This, however, is the exception, and most patients realize that their condition has improved so markedly that they have little or no fear of the final work.

During the period of convalescence we look carefully after the general condition and attend to any definite physical defects as best we know. Functional tests with phenalptharlein, blood urea examination, the alveolar air, and coefficiency are done from time to time, and give us data as to the amount of improvement. Best of all is the appearance of the patient, gain in weight, and regularity of kidney action. In dealing with a certain type of case one becomes accustomed to judge a great deal on general appearance, and while I feel that our various tests are of importance when they agree with the general appearance, I do not consider them infallible.

When, in our opinion, the time for final operation is reached, the patient is given a nitrous oxide and oxygen anesthesia, and the prostate removed through the preliminary incision. This should take but a very few minutes in the average case, usually not less than five nor longer than fifteen. A Hagner bag is introduced to control bleeding, a small pack placed above it, and the patient quickly removed to bed.

Certain pre- and post-operature procedures I consider important enough to mention. First, the patient should have at least two or three days' hospital care, if possible, before either stage is attempted. During this time care of the diet and bowels is imperative. I never employ drastic pre-operative purging, as I consider it detrimental to the patient. Mild laxatives, with careful attention to the lower bowel with enemas, cleans thoroughly and leaves the bowel in an unirritated condition. This to a great extent eliminates post-operative gas pain. The diet should be simple and nourishing, and special importance given to the fluid intake. The best stimulant to kidney excretion is water, and I have the patient use it freely. Hexamethyline in appropriate dosage will do much to prevent infection.

After operation I employ the Murphy drip, with salt or soda solution, until the patient can take fluids readily by mouth, and I use morphine with great care. Usually the patients are advanced in years, and we try at all times to avoid resting in one position for too long a period. Pulmonary edema is usually due to careless nursing, and frequent changing of position will do much to eliminate it. The patient is allowed to be up on pillows on the third day, and, according to his condition, is gotten out of bed on the fifth or sixth day. Healing of the wound takes place readily, the shortest period in my own work being nine days. Occasionally the healing is much delayed, but seldom for more than a month or six weeks. Catheter drainage and daily irrigations of the bladder greatly shorten the convalescence, and if the entire

gland has been removed there is no great difficulty in closing the wound. The patient usually urinates normally before this takes place, and it is always a gala day in prostatic circles when this first occurs. Control is perfect, and after the mild infection clears up the urine should be free from pus. Urination during the night may be rather frequent for the first few weeks, but usually subsides to once or twice. Taking into consideration that the amount is usually increased at the age of the patients, we consider that once is almost normal.

The dangers of prostatectomy are, in order of their importance, hemorrhage, shock, suppression of urine and sepsis.

Hemorrhage may be controlled at operation, and no patient need be taken off the table bleeding. If much blood is lost during operation, intravenous or subcutaneous salt solution may be given with good results. Secondary hemorrhage is an occasional feature and should be met with appropriate measures. The various serums of coagulating substances, as thromboplastin and hemoplastin, usually suffice, but direct transfusion occasionally is imperative.

Shock rarely follows the two-stage method. In fact, we find many cases which are disturbed less by the prostatectomy than by the preliminary drainage. If it occurs, it should be treated by stimulation, by increase of the fluid content, by alkaline or glucose solution, and heat to the patient.

Suppression of urine is best avoided by careful prophylaxis in getting our patient in good condition. Its first index, I believe, is distension of the bowel, as I have never seen much trouble from this cause where the bowel was soft. The indications are to relieve the toxemia, and salines are our best aid. Pituitrin is used quite frequently, but I have gotten results with magnesium sulphate, by washing the stomach with a tube and putting in two or three ounces of a concentrate solution of this drug, where 2 cc. of pitutrin intravenously failed absolutely.

Sepsis in two-stage work is rare. The bladder is firmly attached to the rectus muscle and the prevesical space is well walled off. We work through a healthy granulating wound, which has been immunized to the action of urine, and we have little trouble. Occasionally pyelitis or pyelonephritis occur, but usually it is a lighting up of an unsuspected old lesion rather than new infection.

In conclusion, I would say that prostatectomy should never be considered an emergency procedure. The patient should be relieved of his retention by cystotomy and his general physical condition raised to the best state possible before completing the work.

Of the various procedures for relief of prostatism, I believe complete removal of the gland by the two-stage method gives the patient the best opportunity to survive the operation and obtain a good result.

Regarding the contraindications to prostatectomy, James A. Gardiner of Buffalo, says: "With proper preparation and after care I believe there are no contraindications to prostatectomy." While this statement is somewhat radical, it expresses clearly the trend of modern urology concerning prostatism and its treatment.

JOURNAL OF MAINE MEDICAL ASSOCIATION

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WORKMAN'S COMPENSATION.

The communication published in the last JOURNAL regarding the Workman's Compensation Act was mailed to the Chairman of the Industrial Accident Commission, with the request for the names of accident insurance companies doing business in this state, and other employers of labor coming under this Act. I received the following courteous reply:

February 14, 1922.

INDUSTRIAL ACCIDENT COMMISSION.

DR. BERTRAM L. BRYANT. 265 Hammond Street, Bangor, Maine.

Dear Sir:-Your letter, together with enclosures, was duly received, and the latter and enclosures have been read with great interest.

For your information I am sending you copy of a decision touching this subject, which was rendered by the Industrial Accident Commission in September, 1920.

I do not understand that the policy of treating injured employees as charity patients and of expecting the house doctors or attending surgeons to treat such free of charge is very general in the State of Maine. Every such case which has come to our attention has been set right. We have tried to give this subject careful study, and so far as I know to-day there is no hospital in Maine, either public or private, where the injured employees of assenting employers are taken for free hospital or medical services. If there are any such they exist without the knowledge of the Industrial Accident Commission. The principles set forth in the decision in the McClure case have been repeatedly affirmed in other decisions which have been rendered by the Industrial Accident Commission on similar facts since September, 1920.

It is impossible for us to furnish you with a list of firms employing labor, because there are nearly five thousand such on our lists. You can secure a list of the insurance companies doing business in the State of Maine from G. Waldon Smith, Insurance Commissioner, whose address is State House, Augusta, Maine.

If we can be of any further assistance to you, kindly let me know. Yours very truly,

Arthur L. Thayer, Chairman.

While the publication of the entire report of the McClure case, as sent by the Chairman of the Commission, would be of interest, on account of its length I am submitting for publication only those sections which have a direct bearing on the subject under discussion. I think the conclusions drawn in this case need no explanation.

"The contention of the respondents that because Dr. Peters was a member of the staff of the Eastern Maine General Hospital he should give his services or reduce the charge can have no weight. Section ten of the Maine Workman's Compensation Act provides that 'during the first thirty days after the accident the employer shall promptly furnish reasonable medical, surgical and hospital services, nursing and medicines and mechanical surgical aids when they are needed.' The provisions of section 10 do not contemplate placing any extra burden upon the hospitals for such services when required by injured employees. It places squarely upon the employer or insurance carrier the burden of furnishing such medical, surgical and hospital services as needed, and whether the services are furnished at the state hospitals or private hospitals or at home of the injured, the reasonable expenses for all necessary services rendered must be borne by the employer or insurance carrier. Nothing contemplated in this act requires any member of the staff of any hospital, public or private, to give his services to any injured employee, or that the hospital shall make any sacrifice therefor.

If the services are rendered an injured employee at a hospital by the regular members of the hospital staff, both the hospital and the physician or surgeon rendering services are entitled to reasonable compensation for all services rendered.

Injured employees entitled to compensation under the terms of the Maine Workman's Compensation Act are in no sense to be considered as objects of charity or state aid. They are entitled by the terms of the Act to be furnished all necessary medicine, hospital and surgical treatment, according to the degree of injury, at the expense of the employer or the insurance carrier and at the expense of no other person or institution in this state, and injured employees are as much entitled to receive compensation for such care as they are to receive compensation for loss of time."

The above is a true copy of a part of the decision of the Industrial Accident Commission, September 20, 1920.

BERTRAM L. BRYANT, Secretary.

THE BANGOR CLINIC.

The midwinter clinic held in Bangor, February 20th and 21st, under the auspices of the Maine Public Health and Maine Medical Association, etc., emphasizes clearly the progress in medicine and health matters in Maine, as well as the increased interest in the part played by the medical profession, not only in keeping abreast of the times, so to speak, but their renewed interest in all matters affecting public health.

The Fairfield Clinic and the Bangor Clinic have given the physicians of Maine an unusual opportunity to refresh their memories on physical diagnosis, laboratory methods of diagnosis and treatment, as well as surgical measures, and physicians who have lost these opportunities have lost something of unusual value.

When such men as Fred B. Lund, Channing Frothingham, Lawrence Reynolds, of Boston, and E. G. Abbott, of Portland, will spend two days conducting clinics and giving instructions to the physicians attending the clinic, and when the entire hospital staff of the Eastern Maine General Hospital will devote their entire time either conducting clinics, supplying interesting cases or offering the hospitality of their city, hospital and homes to the visiting men, we are only sorry for those who were not able to partake of these two days' dispensation of medical knowledge, good fellowship and all the things which make life worth while.

It is hoped that Portland will now awake to her opportunity and take her place as a medical center, as the program calls for a clinic to be held in Portland before June 1st.

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County News and Notes.

KENNEBEC.

KENNEBEC COUN'TY MEDICAL ASSOCIATION.

At the annual meeting of the Kennebec County Medical Association the following officers were elected for the ensuing year.

President-John S. Milliken, Readfield.

Vice-President—Ralph L. Reynolds, Waterville.

Secretary and Treasurer—Herbert W. Hall, Augusta.

Censor for Two Years—P. S. Merrill, Waterville.

Delegate for Two Years—Geo. A. Coombs, Augusta; Alternate, J. D. Nutting, Jr.; Hallowell.

HERBERT W. HALL, Sec.

Note.

TENTATIVE PROGRAMME FOR THE STATE MEETING IN JUNE.

Walter N. Miner, Calais, "Elements Confronting the Abdominal Surgeon."

Discussion opened by John Sturgis, Auburn.

Herbert E. Thompson, Bangor, "Recent Developments in Blood Chemistry."

Edward H. Risley, Waterville, "The Cancer Control Problem."

Discussion opened by Frank H. Jackson, Houlton.

Clarence F. Kendall, Augusta, "Demography."

Charles N. Stanhope, Dover, "Some Observations on Infant Feeding as Seen in the Boston Floating Hospital in 1921."

Charles C. Morrison, Jr., Bar Harbor, "Colles's Fracture."

Raymond V. N. Bliss, Bluehill, "General Practice—A Specialty and Opportunity."

Elliot P. Joslin, Oration in Medicine, "Diabetes."

Dr. Philip P. Thompson, Portland, "Osteopathy."

Dr. Millard C. Webber, Portland, "Chiropractice."

Dr. William W. Balster, Lewiston, "Hydrotherapy."

Dr. Lester P. Gerrish, Lisbon Falls, "Mental Therapy."

Dr. James T. Gwathmey, New York City, "Anæsthesia."

THE ST. LOUIS MEETING OF THE AMERICAN MEDI-CAL ASSOCIATION.

The arrangements of the St. Louis profession for the meeting places of the session of the A. M. A., which is to be held in their city May 22-26 next, are singularly fortunate and convenient; never has the Association been so well favored in this respect. The district in which the meeting is to take place is at the west edge of the business section of the city, easily accessible from all directions by street car or otherwise and not more than fifteen minutes' street car ride from the most distant hotel. The grouping of the meeting places is so compact that should one walk from the Registration Building (Moolah Temple) to the farthest hall it can be done in ten minutes or less; from section to section is a matter of from one to five minutes. The convenience of the location and arrangements of the different halls is more outstanding than in any other city in which the Association has met, and a decided improvement over the accommodations which were had at the meeting in St. Louis, 1910.

The Management of an Infant's Diet

Infants' Stools

Regularity in bowel movements contributes much toward normal, healthful progress, and a knowledge of the number and character of the stools during each twenty-four hours is an important part of the general management of early life and assists much in properly adjusting the diet.

Suggestions for the regulation of infants' stools by slight changes in the make-up of the diet and particularly in relation to

Constipated Movements

are given in our book, "Formulas for Infant Feeding," and in a pamphlet devoted especially to this subject. This literature will be sent to physicians who are interested in the matter.

Mellin's Food Company, Boston, Mass.

Correspondence.

March 8, 1922.

DR. F. Y. GILBERT,

Editor of Maine Medical Journal.

My dear Dr. Gilbert.—I am submitting a list of research laboratories and hospitals organized for the Study and treatment of Cancer. Mr. F. J. Osborne, Secretary of The Society for the Control of Cancer, kindly furnished this list. It seems to me of value to publish this list, if for no other reason than that of focusing the attention of physicians of this state on the work which is being done in this country to investigate the Cancer problem from all angles.

1. Research Laboratories.

The Harvard Cancer Commission, Boston, Mass.

New York State Institute for the Study of Malignant Disease, Buffalo, New York.

Columbia Institute of Cancer Research, New York City. Rockefeller Institute for Medical Research, New York City.

II. Hospitals and Clinics.

Memorial Hospital, New York City.

Huntington Hospital, Boston, Mass.

Banard Free Skin and Cancer Hospital, St. Louis, Mo.

Free Cancer Clinic, Columbus, Ohio.

This does not include many general hospitals which make special studies of Cancer cases, Johns Hopkins and The Mayo Clinic, among others.

III. There are several institutions devoted to the care and comfort of inoperable cases in New York City and doubtless elsewhere. I know of no such institution in this State.

So far as I know, St. Barnabas Hospital, of Portland, is the only hospital in Maine where a thorough trial is being made in the use of radium as an adjunct to surgery or as a means of treatment in appropriate cases.

Very truly yours,

MORTIMER WARREN,

For the Cancer Committee of The Maine Medical Association.

THE JOURNAL

OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association.

All papers, case reports, etc., should be typewritten when possible.

Proof-sheets will be sent to the author when requested.

Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

Vol. XII.

APRIL, 1922.

No. 9

*RADIOTHERAPY AND ELECTRO-COAGULATION IN THE TREATMENT OF MALIGNANT DISEASE.

(Illustrated by Lantern Slides.)

By George E. Pfahler, M. D., and Bernard P. Widmann, M. D., Philadelphia, Pa.

Malignant disease is on the increase, and no method of treatment which is entirely satisfactory has yet been discovered. However, if all the knowledge that we have of malignant disease to-day is applied properly, and at an early date, most of the malignant diseases can be eliminated. Surgery has accomplished much by excision, and of course if excision is done early enough and completely enough to surround all of the malignant disease the patient should get well. Unfortunately in the majority of cases the patient applies for surgical treatment too late, and if excision under these circumstances is done the disease is apt to be cut into instead of being cut out, which accounts for the many failures that have made the laity fear surgical operations. In all instances, radiotherapy can be combined with surgical excision to advantage, with the object of destroying any cells that may remain near the field of operation. Unfortunately in many instances the disease has been distributed, either before the operation or during the operation, to some distant point which cannot be known and therefore cannot be treated successfully by radiotherapy. We believe that every case of malignant

*Presented by invitation before the annual meeting of the Maine Medical Association, June 29, 1921.

disease operated upon should be treated by radiotherapy preceding the operation and following the operation. This paper is presented with the object of reminding the profession again that there are other methods of treatment which can be used even if excision is refused, and in many instances patients would be willing to come early for some other form of treatment if there is a reasonable hope of success, and thus receive treatment at a time when there should be a brilliant hope of success.

This subject is so broad that we will ask to be excused for any statements that seem dogmatic, but we at least are convinced of everything that is reported in this paper. In order to be more specific we will take up malignant disease as it occurs in the various parts of the body in a more or less classified form.

EPITHELIOMA OF THE SKIN.

It is our opinion that all epitheliomata of the skin, if treated early and thoroughly, should get well. If they have been tampered with and incompletely treated, either by caustics, excision or any other method that only destroys part of the disease, the chances of recovery are greatly diminished. So, too, if the disease has invaded the deeper tissues, especially the muscle, cartilage, bone or mucous membrane, the outlook is more grave.

Basal Cell Epitheliomata. The basal cell epitheliomata occur especially upon the forehead, nose and face. They recur if incompletely removed, and may destroy large portions of the face and may invade the deeper tissues, but they rarely (if ever) give rise to metastasis. Therefore the prime object should be complete destruction from the beginning. This can be done by means of the Roentgen rays or by means of radium, in which instance three or four times the erythema dose should be given locally at once. It is our practice generally to destroy these lesions by electro-coagulation. which means destruction by means of the high frequency spark, and then follow with a full erythema dose of the Roentgen rays. This saves time, eliminates the lesion promptly, and by this combination there should be no failures. This destruction by electro-coagulation should not be used generally about the eyelids because the resulting scar causes contraction of the eyelids producing ectropion. Therefore, especially about the eyelids, radium can be used to great advantage, but if one does not have radium the Roentgen rays can be used with success if one makes immediate application of three or four erythema doses at once or within a few days. The conjunctiva should be protected unless actually involved by the disease.

Squamous Cell Epitheliomata occur especially upon the lips and mucous membrane of the mouth, but also upon the skin of the back of the hands. These recur locally if not completely destroyed, and give rise early to metastasis. When metastasis has occurred the probabilities of recovery are greatly reduced. In the treatment of this group, it is our custom to destroy the lesion locally by means of electro-coagulation, providing such destruction does not cause loss of too much tissue. If electro-coagulation is used, radiotherapy, either by the Roentgen rays or by radium, is used locally and upon the adjacent glandular areas to the point of saturation of the tissues. In epithelioma of the lip, for example, it is our custom, if the entire lip is not involved, to destroy the local lesion by electro-coagulation, then to give a full dose of Roentgen rays over the chin and including the lower lip area consisting of 50 milliampere minutes, at a distance of 8", through 6 millimeters of aluminum filter, with a parallel spark gap of 9", or 90,000 volts. In the submaxillary region on each side, or in the submental region with the head tilted backward, we give 125 milliampere minutes exposure, through 6 millimeters of aluminum filter, at 12" distance, with a parallel spark gap of 9". This radiation should be repeated in two weeks, then in three weeks, then in four weeks. So far as we have been able to learn we have not failed in any primary case in which there were not palpable lymph nodes at the time of beginning treatment, and no lymph nodes developed subsequently. In dealing with recurrences the problem is more difficult. Even with palpable lymph nodes we have had some success by the introduction of radium needles into the metastasis, together with thorough radiation with the Roentgen rays.

Epithelioma of the Tongue we believe can be treated successfully if treated early by similar means. In some cases it is better to treat entirely by radiation, using radium needles by insertion, and radium screened.

Epithelioma of the Cheek we regard as extremely difficult, and should always be looked upon as a serious disease from the very beginning.

CARCINOMA OF THE BREAST.

Progress has been made by radiotherapy during the past year or two in the treatment of malignant disease of the breast, but for the present we had better hold to that which has been tried over a longer period of years. Therefore we recommend preliminary radiation covering the mammary region, the supraclavicular region and the axillary region twice during a period of two weeks. This preliminary radiation is then followed within a few days by a complete surgical operation, and two or three weeks later the patient should again be thoroughly radiated over all of these areas. This gives the patient the best advantages of both radiation and operation. The preliminary treatment devitalizes the carcinoma cells so that they cannot easily reproduce themselves either in the freshly excised wound or even if they are carried in the blood stream. The post-operative treatment is intended to destroy any remaining carcinoma cells and seal off the lymphatics so that there is not likely to be further metastasis. Unfortunately metastasis has taken place often before the patient reports for examination, and if this has extended to indefinite points not within the field of radiation it will, of course, not be influenced by the treatment.

Primary Inoperable Carcinoma of the Breast. Radiotherapy offers a reasonable hope of success even in this group of cases. Even with extensive carcinoma within the breast and with lymph nodes in the axilla and supraclavicular region, by means of thorough Roentgen radiation, together with the introduction of radium needles into the tumor masses, we have seen some most satisfactory results, and so far as we can tell a complete disappearance of the disease. It is our aim in this group to cover the entire mammary, supraclavicular and axillary regions as described above, preliminary to operation, in which case we use 40 minutes exposure, at 40 cm. distance, with 6 millimeters of filter, 9" parallel spark gap, 5 milliamperes of current over each area, and within a week repeat the exposure over each of these areas using 25 minutes exposure. This is liable to produce some redness of the skin, but such effect is trifling compared with the ill results that may develop from an extension of the carcinoma. At the end of two weeks, if the patient does not consent to operation, or cannot be operated upon, radium needles are introduced into all the tumor masses (whether primary or metastatic) sufficient to cause complete destruction of the carcinoma. This is followed again within about two weeks by further radiation, and so on until the disease completely disappears. We are giving a general outline of our plan of treatment, but of course there are variations in each particular case, just as a surgeon must vary his operation to accomplish the best results.

Recurrent and Metastatic Carcinoma of the Breast. This can probably be dealt with better by radiotherapy than by any other means, but it is always less satisfactory than dealing with the primary disease. In many instances the recurrent nodules and lymph nodes can be made to disappear completely. I have had patients remain well following definite recurrences during a period of at least

nine years. We have even succeeded in getting metastatic carcinoma of the spine to heal. One of these patients that was treated approximately four years ago, who had been bedfast for fifteen weeks from metastasis to the spine following carcinoma of the breast, has been doing her general housework, including her washing and ironing, for over three years, and is to all outward appearances well. We believe, however, that in all cases in which there is metastasis to the spine or to the bones that the patient will die of general metastasis sooner or later, in spite of treatment. This has been our general experience, though we have had a number of cases of metastatic carcinoma of the bone heal up locally as a result of the treatment, and live two or three years longer than could otherwise be expected.

CARCINOMA OF THE UTERUS.

It is likely that if we can hold forth a reasonable hope of success by some other form of treatment than excision that patients will be more liable to seek assistance early and in this way better results will be accomplished. It is the opinion of those most experienced in dealing with carcinoma of the uterus that the operative field is being progressively diminished, because as skill in the application of radium and the Roentgen rays increases the successes from this form of treatment also increase, and it is the belief of some that all of these patients should be treated by radiotherapy providing they can be treated skillfully and thoroughly. Mere possession of a small quantity of radium or an X-ray machine is no more a guarantee of skill than is the possession of a set of surgical instruments a guarantee of a skillful surgeon. It is far better that a skillful surgeon operate than that a bungling therapeutist should treat patients. At the present time it is believed that the carcinomata of the fundus should be removed surgically, because the probabilities of recovery from this operation are great. It is generally accepted that the carcinomata of the uterus that have extended to the parametrium or that have extended to the vagina are more successfully treated by thorough radiation with radium and the Roentgen rays than by excision or cautery, or any combination of this. Some observers believe that even carcinoma of the cervix in its earliest stages should be treated by radiation in preference to operation. The modern technique of radiotherapy has not been in use long enough to make very emphatic statements in this regard, because the period of recovery has not passed the accepted five-year limit. Even if the patients are operated upon surgically it is advisable, we believe, to radiate internally by radium and externally by the Roentgen rays

preliminary to the operation, and again subsequently to the operation.

This paper will become too lengthy if we discuss all phases and all portions of the body that may be involved by carcinoma, but we cannot dismiss the subject without some consideration of sarcoma.

SARCOMA.

In general, sarcoma yields more readily to the Roentgen rays than carcinoma, and it is our opinion that sarcoma gives a better chance of recovery from thorough radiation than from excision, unless there has been thorough radiation before the excision takes place. In many instances the treatment by radiation will save important organs, as, for instance, the retrobulbar sarcomata, in which any attempt at excision means the loss of the eye and failure from extension to the brain is most likely if excision is attempted. We have had success from radiation in a number of retrobulbar sarcomata.

CONCLUSIONS.

- 1st. Radiotherapy, when practical, should be used preceding and following operations.
- 2nd. Electro-coagulation can, in many instances, be used to replace excision, and to advantage, because the blood vessels and lymphatics are sealed off in the process of destruction and there is a heat zone beyond the area of actual destruction which will destroy carcinoma.
- 3rd. Radiotherapy can be used with success in nearly all of the superficial cancers.
- 4th. Radiotherapy will in some instances cause a complete disappearance of even deep-seated malignant disease.



Fig. 1. (a) Shows an epithelioma of the lower eyelid and illustrates the type that should be treated by radiation only, for any form of destruction or excision will result in deformity of the lower lid. (b) Shows the result from applications of X-rays only, with complete disappearance of the tumor and no damage to the skin.



Fig. 2. (a) Shows an epithelioma of the cyclid which was treated by electro-coagulation and X-ray treatment. (b) Shows complete disappearance of the disease and only slight retraction of the outer portion of the lid. This is better than the average result obtained by such combination treatment, and we believe that the application of radium or X-rays in these cases accomplishes the best results. Still well June 24, 1921.



Fig. 3. (a) Shows a very advanced epithelioma involving the entire orbit, with destruction of nearly all of the orbital tissues and erosion of the surface of the bone. This type is more difficult to get well by radiation alone and the destruction of the tissue is less objectionable. Therefore, under general anesthetic, we destroyed the entire disease and implanted radium into the orbit. (b) Shows complete healing and complete disappearance of the disease.



Fig. 4. (a) Shows the type of epithelioma that does not respond so well by radiation, but does respond beautifully to electro-coagulation. An epithelioma which has eroded the cartilage of the nose or the ear does not respond well to radiation. (b) Shows complete disappearance of the disease with only a very small sear.



Fig. 5. (a and b) Shows an epithelioma of the nose which had been treated by pastes and other incomplete methods during a period of four years, with partial destruction of the cartilage and involvement of the remaining cartilage. (c) Shows the disappearance of the disease. The small area to the left, which is not covered by skin, is due to a small sequestrum of bone resulting from the destruction, and which has since healed completely. (d) Shows the appearance after an artificial nose has been attached to the glasses.

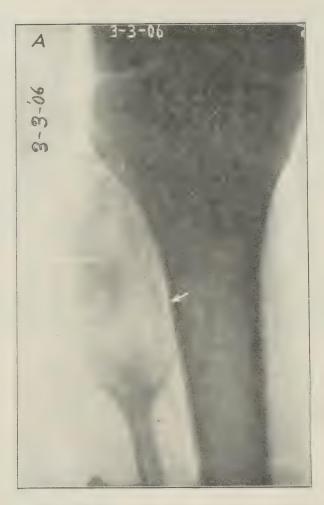


Fig. 6. (a) Shows a central sarcoma of the upper extremity of the fibula, referred to by Dr. M. P. Warmuth, who said that the microscopical diagnosis from a section removed showed round celled sarcoma.



(b) Shows the result fifteen years later. All of the treatment had been given during the first three months. After this there was progressive contraction of the tumor and an increase in the lime salts.

DISCUSSION.

A question was asked from the floor as to the prognosis in Hodgkin's Disease under radium treatment.

THE PRESIDENT: I will say that something like a year and a half ago I had an opportunity to visit Dr. Pfahler's laboratory in Philadelphia and saw some of the wonderful work he is doing there with X-ray and radium. Dr. Widmann has shown slides of much of the work, but I was favored by seeing the almost alarming amount of work they are doing there every day, and the results they were getting were absolutely marvelous to me. Since that time I have in a small way used X-ray therapy, and by sending cases to men who had radium, I have combined it with radium therapy, and several absolutely hopeless cases under previous forms of treatment show apparent cures. I have a case of a recurrent carcinoma of the cervix, showing involvement of the base of the bladder, which under the combined radium and X-ray therapy is entirely free to-day of any evidence of disease. Dr. Thayer and others have had an opportunity to examine this patient and I think they will gladly bear me out in what I say. I had a case of inoperable sarcoma of the large intestine-Dr. John Thompson saw the case and Dr. Hubbard, of Boston-and they said it was an absolutely inoperable proposition. That was a year ago last fall, and to-day he is absolutely free from any evidence of the sarcoma, and is apparently a well man. Dr. Widmann, will you conclude the discussion?

DR. WIDMANN: We are treating a good many patients for Hodgkin's Disease by the X-ray-diagnosis made clinically. I have in mind one patient who has remained well for seven years, almost eight years. Dr. Pfahler, however, has been under the impression—and I think also a great many of the men who have had experience with radium for Hodgkin's Disease-that they will not remain well longer than a period of five years. That was with the technique that they were using several years ago. Things have changed much, and now we are in the habit of having our patients come back to see us even after all palpable and visible evidence of disease has disappeared. We have them come back every three or four months and we give them a treatment over their whole chest, both sides of the neck and axilla, going over them very thoroughly as a matter of precaution. The man I refer to has now remained well for eight years, although he is an active broker and working very hard in the city. Other than that, I do not know that I can give you anything more definite about Hodgkin's Disease. I think these results, however, are pretty good, and that probably by following up the cases and treating them every three or four months, or even every six months, you can keep them well indefinitely.

DR. ROBINSON: In regard to the percentage of cures, I was talking with Dr. Clark, of Philadelphia, last week, and in a series of over 300 inoperable cases of cancer of the cervix, he reports 24 per cent. apparently cured at the end of four years, which is a distinctive advance on operative surgery. In the Memorial Hospital in New York, they report several cases of cancer of the prostate. I saw one man there who was acting as conductor on a street railway car who had a cancer of the prostate for four years and who is apparently getting well.

As to the question of apparently getting well locally and growing bad generally, it may be said that over-radiation by X-ray or radium will break the resistance of the patient. The blood may become anemic and a leukemia result from too large a dose of radium. It breaks your immunity and the end is quite rapid.

*TEN YEARS AS SECRETARY OF THE YORK COUNTY MEDICAL SOCIETY.

By Dr. ARTHUR L. JONES, Old Orchard.

Having become a member of the York County Medical Society on January 6, 1910, I was elected Secretary at a meeting held in this room on January 11, 1912, succeeding Dr. D. E. Dolloff, of this city. At the same time, Dr. E. C. Cook, of York Village, was elected President, and I have served with the following Presidents of this society, in the order of their election: Drs. E. C. Cook, York Village; L. E. Willard, Saco; J. W. Gordon, Ogunquit; J. M. O'Connor, Biddeford; H. L. Prescott, Kennebunkport; C. E. Cook, South Berwick; C. F. Kendall, Biddeford; A. S. Davis, Springvale; F. W. Smith, York Harbor; P. S. Hill, Saco. For a period of eight years, up to January, 1920, Dr. C. F. Traynor, of Biddeford, was my esteemed associate, having the office of Treasurer, which, since that time, has been filled most capably by Dr. C. G. Dennett, of Saco. During all the years of my association and co-operation with the Presidents and other officers of the York County Medical Society, the most harmonious and pleasant relations have existed.

Since January, 1912, forty-six members have been added to our list, an average of 4.6 per year. Their names follow in the order of their admission: J. D. Butler, P. H. Abbott, Ivan Staples, F. C. Lord, L. H. Brown, W. H. Kelly, J. N. L'Heureux, L. W. Parady, R. L. Maybury, W. E. Lightle, S. B. Marshall, F. E. Phillips, H. P. Ilsley, H. A. Owen, C. E. Cook, A. C. Lamoureux, W. W. Varrell, W. H. Baker, S. W. Allen, C. M. Sleeper, P. S. Sullivan, F. A. Bragdon, O. E. Boivin, S. A. Cobb, J. C. Stewart, R. W. E. Cole, E. D. Jaques, H. E. Anderson, J. W. Schafer, K. B. Tracy, R. A. Goss, E. L. Thompson, F. G. Devereux, G. W. Weeks, S. G. Sawyer, H. K. Tibbetts, H. D. Ross, C. G. Dennett, A. J. Stimpson, G. R. Love, C. W. Kinghorn, O. B. Head, J. S. Barker, E. L. Burnham, L. R. Syphers, C. S. Underhill. Of these several had been members many years ago, some at the time of the organization of this society, nearly twenty-seven years ago, but, for one reason and another, their membership had lapsed.

Of deaths among our members, it is a pleasure to report that there have been comparatively few during the past decade. The six following physicians have passed to the Great Beyond: F. L. Davis, of Biddeford, Oct. 10, 1914; F. H. Hobbs, Waterboro, Oct. 11,

^{*}Read January 5, 1922, at meeting in Biddeford.

1914; J. H. Shannon, Sept. 14, 1916; R. S. Gove, Sanford, Dec. 19, 1916; J. M. O'Connor, Biddeford, April 20, 1917; C. W. Pillsbury, Saco, Dec. 3, 1919.

The forty-one meetings, beginning January, 1912, have been held in various places, in order to create more interest among the members and to accommodate the greatest possible number. Biddeford has had thirteen, Sanford five, Kennebunk and York three each, Alfred, North Berwick and Old Orchard two each, Bay View (Saco), Biddeford Pool (Biddeford), Cape Porpoise (Kennebunkport), Cornish, Dunstan (Scarboro), Kennebunkport, Kennebunk Beach, Ogunquit (Wells), Saco, South Berwick and Springvale one each.

There are at present approximately eighty-five physicians in York County who are eligible for membership, and we reported to the Secretary of the Maine Medical Association last May sixty-three members in good standing, and during the year 1921 five more paid dues, making a total of sixty-eight, of whom four reside outside of York County, so that we have as members about 75 per cent. of the regular practitioners in this county. How to get the remaining 25 per cent. is a great problem, for many and varied appeals have been made by your Secretary in an effort to have them admitted to membership.

Our meetings have been entertaining, interesting and instructive. Many different subjects have been presented in an able manner by eminent physicians and surgeons of Portland and elsewhere, in the state and outside the state, and we have had as honored guests several Presidents of the Maine Medical Association and other distinguished visitors.

I wish to take this opportunity to express my deep appreciation of the honor that has been bestowed upon me by the members of the York County Medical Society, who have repeatedly elected me to the important and responsible office of Secretary of this organization.

JOURNAL OF MAINE MEDICAL ASSOCIATION

Editorial Staff.

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DR. T. E. HARDY, Waterville.

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DR. H. W. SMITH, Norridgewock.
DR. G. A. NEAL, Southwest Harbor. Dr. F. H. Webster, Rockland.

THE COUNTY SECRETARIES AND THE NECROLOGIST.

Attention is once more called to the forgetfulness of the secretaries concerning an early notice to the Necrologist of the deaths of our active members. During the past year twelve of our number died, and in every instance the Necrologist failed to receive a single report concerning the occurrence from the County Secretary. More than that, the news was only discovered in Boston or Chicago journals. From such distant clues as these the attention of the Secretaries was ultimately obtained.

The task of the Necrologist is difficult, for he not only has to gather together all available clues concerning the careers of deceased members, but he is expected to present to the readers of the JOURNAL an ideal picture of the man. Let those who have never tried this sort of work make an attempt at the next opportunity and so discover the difficulties involved. The Necrologist, therefore, asks once more for encouragement from the Secretaries as well as from members. How easy to send in a newspaper cutting, to ask the local editor to send on any half-tone published, and to add some anecdote or even the title of a paper read by deceased members at various meetings. Everybody secretly hopes for a good notice of his works, when he has completed them to his satisfaction, why not then do a share in helping toward a kind notice about those who just happen to go along ahead of us. Look at death in this way and help out the Necrologist with something in the way of facts about former members. J. A. S.

AN ACT FOR THE PROMOTION OF THE WELFARE AND HYGIENE OF MATERNITY AND INFANCY, AND FOR OTHER PURPOSES.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby authorized to be appropriated annually, out of any money in the treasury not otherwise appropriated, the sums specified in Section 2 of this Act, to be paid to the several states for the purpose of cooperating with them in promoting the welfare and hygiene of maternity and infancy as hereinafter provided.

SEC. 2. For the purpose of carrying out the provisions of this Act, there is authorized to be appropriated, out of any money in the treasury not otherwise appropriated for the current fiscal year \$480,000, to be equally apportioned among the several states, and for each subsequent year, for the period of five years, \$240,000, to be equally apportioned among the several states in the manner hereinafter provided: Provided, That there is hereby authorized to be appropriated for the use of the states, subject to the provisions of this Act, for the fiscal year ending June 30, 1922, an additional sum of \$1,000,000, and annually thereafter, for the period of five years, an additional sum not to exceed \$1,000,000: Provided further, That the additional appropriations herein authorized shall be apportioned \$5,000 to each state and the balance among the states in the proportion which their population bears to the total population of the states of the United States, according to the last preceding United States census: And provided further, That no payment out of the additional appropriation herein authorized shall be made in any year to any state until an equal sum has been appropriated for that year by the legislature of such state for the maintenance of the services and facilities provided for in this Act.

So much of the amount apportioned to any state for any fiscal year as remains unpaid to such state at the close thereof shall be available for expenditures in that state until the close of the succeeding fiscal year.

SEC. 3. There is hereby created a Board of Maternity and Infant Hygiene, which shall consist of the Chief of the Children's Bureau, the Surgeon General of the United States Public Health Service, and the United States Commissioner of Education, and which is hereafter designated in this Act as the Board. The Board shall elect its own chairman and perform the duties provided for in this Act.

The Children's Bureau of the Department of Labor shall be charged with the administration of this Act, except as herein other-

wise provided, and the Chief of the Children's Bureau shall be the executive officer. It shall be the duty of the Children's Bureau to make or cause to be made such studies, investigations and reports as will promote the efficient administration of this Act.

- SEC. 4. In order to secure the benefits of the appropriations authorized in Section 2 of this Act, any state shall, through the legislative authority thereof, accept the provisions of this Act and designate or authorize the creation of a state agency with which the Children's Bureau shall have all necessary powers to co-operate as herein provided in the administration of the provisions of this Act: Provided, That in any state having a child-welfare or child-hygiene division in its state agency of health, the said state agency of health shall administer the provisions of this Act through such divisions. If the legislature of any state has not made provision for accepting the provisions of this Act the governer of such state may in so far as he is authorized to do so by the laws of such state accept the provisions of this Act and designate or create a state agency to co-operate with the Children's Bureau until six months after the adjournment of the first regular session of the legislature in such state following the passage of this Act.
- SEC. 5. So much, not to exceed 5 per centum, of the additional appropriations authorized for any fiscal year under Section 2 of this Act, as the Children's Bureau may estimate to be necessary for administering the provisions of this Act, as herein provided, shall be deducted for that purpose, to be available until expended.
- SEC. 6. Out of the amounts authorized under Section 5 of this Act the Children's Bureau is authorized to employ such assistants, clerks, and other persons in the District of Columbia and elsewhere, to be taken from the eligible lists of the Civil Service Commission, and to purchase such supplies, material, equipment, office fixtures, and apparatus, and to incur such travel and other expense as it may deem necessary for carrying out the purposes of this Act.
- SEC. 7. Within sixty days after any appropriation authorized by this Act has been made, the Children's Bureau shall make the apportionment herein provided for and shall certify to the Secretary of the Treasury the amount estimated by the Bureau to be necessary for administering the provisions of this Act, and shall certify to the Secretary of the Treasury and to the treasurers of the various states the amount which has been apportioned to each state for the fiscal year for which such appropriation has been made.
- SEC. 8. Any state desiring to receive the benefits of this Act shall, by its agency described in Section 4, submit to the Children's

Bureau detailed plans for carrying out the provisions of this Act within such state, which plans shall be subject to the approval of the Board: Provided, That the plans of the states under this Act shall provide that no official, or agent, or representative in carrying out the provisions of this Act shall enter any home or take charge of any child over the objection of the parents, or either of them, or the person standing in loco parentis or having custody of such child. If these plans shall be in conformity with the provisions of this Act and reasonably appropriate and adequate to carry out its purposes they shall be approved by the Board and due notice of such approval shall be sent to the state agency by the Chief of the Children's Bureau.

SEC. 9. No official, agent, or representative of the Children's Bureau shall by virtue of this Act have any right to enter any home over the objection of the owner thereof, or to take charge of any child over the objection of the parents, or either of them, or of the person standing in loco parentis or having custody of such child. Nothing in this Act shall be construed as limiting the power of a parent or guardian or person standing in loco parentis to determine what treatment or correction shall be provided for a child or the agency or agencies to be employed for such purpose.

SEC. 10. Within sixty days after any appropriation authorized by this Act has been made, and as often thereafter while such appropriation remains unexpended as changed conditions may warrant, the Children's Bureau shall ascertain the amounts that have been appropriated by the legislatures of the several states accepting the provisions of this Act and shall certify to the Secretary of the Treasury the amount to which each state is entitled under the provisions of this Act. Such certificate shall state (1) that the state has, through its legislative authority, accepted the provisions of this Act and designated or authorized the creation of an agency to co-operate with the Children's Bureau, or that the state has otherwise accepted this Act, as provided in Section 4 hereof; (2) the fact that the proper agency of the state has submitted to the Children's Bureau detailed plans for carrying out the provisions of this Act, and that such plans have been approved by the Board; (3) the amount, if any, that has been appropriated by the legislature of the state for the maintenance of the services and facilities of this Act, as provided in Section 2 hereof; and (4) the amount to which the state is entitled under the provisions of this Act. Such certificate, when in conformity with the provisions hereof, shall, until revoked as provided in Section 12 hereof, be sufficient authority to the Secretary of the Treasury to make payment to the state in accordance therewith.

- SEC. 11. Each state agency co-operating with the Children's Bureau under this Act shall make such reports concerning its operations and expenditures as shall be prescribed or requested by the Bureau. The Childen's Bureau may, with the approval of the Board, and shall, upon request of a majority of the Board, withhold any further certificate provided for in Section 10 hereof whenever it shall be determined as to any state that the agency thereof has not properly expended the money paid to it or the moneys herein required to be appropriated by such state for the purposes and in accordance with the provisions of this Act. Such certificate may be withheld until such time or upon such conditions as the Children's Bureau, with the approval of the Board, may determine; when so withheld the state agency may appeal to the President of the United States, who may either affirm or reverse the action of the Bureau, with such directions as he shall consider proper: Provided, That before any such certificate shall be withheld from any state, the chairman of the Board shall give notice in writing to the authority designated to represent the state, stating specifically wherein said state has failed to comply with the provisions of this Act.
- SEC. 12. No portion of any moneys apportioned under this Act for the benefit of the states shall be applied, directly or indirectly, to the purchase, erection, preservation or repair of any building or buildings or equipment, or for the purchase or rental of any buildings or lands, nor shall any such moneys or moneys required to be appropriated by any state for the purposes and in accordance with the provisions of this Act be used for the payment of any maternity or infancy pension, stipend, or gratuity.
- SEC. 13. The Children's Bureau shall perform the duties assigned to it by this Act under the supervision of the Secretary of Labor, and he shall include in his annual report to Congress a full account of the administration of this Act and expenditures of the moneys herein authorized.
- SEC. 14. This Act shall be construed as intending to secure to the various states control of the administration of this Act within their respective states, subject only to the provisions and purposes of this Act.

Approved, November 23, 1921.

THE TREATMENT OF CARBON MONOXIDE POISONING.

Carbon monoxide poisoning is one of the most widely distributed and most frequent of industrial accidents, says the U.S. Public Health Service. The gas is without color, odor or taste. It is an ever-present danger about blast and coke furnaces and foundries. It may be found in a building having a leaky furnace or chimney or a gas stove without flue connection, such as a tenement, tailor shop, or boarding house. The exhaust gases of gasoline automobiles contain from 4 to 12 per cent, of carbon monoxide, and in closed garages men are not infrequently found dead beside a running motor. A similar danger may arise from gasoline engines in launches. The gas is formed also in stoke rooms, in gun turrets on battleships, in petroleum refineries, and in the Leblanc soda process in cement and brick plants. In underground work it may appear as the result of shot firing, mine explosions, or mine fires, or in tunnels from automobile exhausts or from coal or oil burning locomotives.

Carbon monoxide exerts its extremely dangerous action on the body by displacing oxygen from its combination with hemoglobin, the coloring matter of the blood which normally absorbs oxygen from the air in the lungs and delivers it to the different tissues of the body.

Oxygen will replace carbon monoxide in combination with hemoglobin whenever the proportion of oxygen in the lungs is overwhelmingly greater. Therefore:

- 1. Administer oxygen as quickly as possible, and in as pure form as is obtainable, preferably from a cylinder of oxygen through an inhaler mask.
- 2. Remove patient from atmosphere containing carbon monoxide.
- 3. If breathing is feeble, at once start artificial respiration by the prone posture method.
 - 4. Keep the victim flat, quiet and warm.
 - 5. Afterwards give plenty of rest.

Book Review.

Lessons on Tuberculosis and Consumption.

By Charles E. Atkinson, M. D. 12 mo., cloth, 470 pages. Price, \$2.50 net. Funk & Wagnalls Company, New York, Publishers.

Why "and" in the title? But this is published for the layman and not for the medical critic. There are many good handbooks on tuberculosis. This is another, and more valuable in intimate detail. It has one strong recommendation. The author is a doctor who has had to practice all that he preaches. That there is a way from darkness to light in tuberculosis should be known to the public; it should be better known that guides along the way are necessary. Doctors of personal experience in tuberculosis have been over the road, and are licensed guides.

The man in the street says, "Tuberculosis. Oh, I know all about it! Shut up every case as a terrible danger to the public. Treatment is rest, fresh air and feeding." It is rather surprising that many doctors get no farther than this. Dr. Atkinson asks, "Why so many failures if tuberculosis is curable?" "So-called incipient tuberculosis is not the negligible matter some consider."

The public gives a sympathetic attention to the victim of his own specialty. Would Trudeau have had the whole country at his back, or Bushnell, or Minor, and other well-known specialists, achieve their public success, had they not fought the foe? Dr. Atkinson is in good company. We hope he gets the audience, and is not merely an excellent parson preaching to an empty church. Our city papers have reviewed this book. Score a base hit for Dr. Atkinson in the first inning.

C. B. Sylvester, M. D., Portland, Me.

County News and Notes.

ANDROSCOGGIN.

ANDROSCOGGIN COUNTY MEDICAL ASSOCIATION.

The regular meeting of the Androscoggin County Medical Association was held at Hotel DeWitt, Lewiston, Maine, March 7, 1922.

Following the banquet, Dr. J. Sturgis, the President, called the meeting to order.

Dr. J. Sturgis introduced as speaker of the evening, Dr. Wm. Van V. Hayes, of New York, who gave a very interesting illustrated lecture on investigation and management of cases of suspected cancer of the stomach.

Dr. Goodwin moved that the chairman appoint a committee of three to draw resolutions on the death of Dr. Henry Webber. The committee appointed: Drs. Peaslee, Marston and Sleeper.

A motion was made to adjourn to one week from this date for a special meeting to be held.

There were present: Drs. J. Sturgis, Randall, Renwick, Buker, Barrell, Cunningham, Chaffers, Plummer of Lisbon, Haskell, Emmons, Farris of Oxford, Goodwin, Goodrich, Cushman, Andrews, Wm. Van V. Hayes of New York, Pierce, Stuart of Norway, Webber, Bolster, Dupras, Gauvreau, Peaslee, Sleeper, Wiseman, O'Connell, Miller. Desaulniers, Garcelon, Turcotte, Call, B. Russell, Fahey, Marston, H. Bartlett of Norway and Dumont.

L. J. DUMONT, M. D., Secretary.

A special meeting, held at the Municipal Court Room, City Building, Lewiston, Maine, March 14, 1922, was called to order by the President, Dr. J. Sturgis.

Records of previous meeting not read.

It was voted to assess each member \$3.00 in order to have outside men to read a paper at our meetings.

Easily adapted to individual infant feeding

In both normal and abnormal conditions

"Horlick's"

The Original Malted Milk

Always clean, safe and reliable. Well balanced, a complete food. Very convenient. Used successfully over one-third of a century.

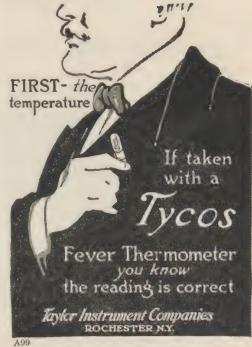
For the prescribed feeding also of all ages—anæmic, sick and convalescent.

Samples Prepaid

AVOID IMITATIONS

An excellent X-Ray vehicle HORLICK'S

Racine, Wis.



OFFICE TYPE AND PORTABLE SPHYGMOMANOMETERS, URINARY GLASSWARE.

An Intestinal Antiputrefactive

That has stood the test of twelve years of constantly increasing clinical use.

BULGARA TABLETS, H. W. & D.

The vigorous and viable Bacilli Bulgarici which these tablets contain tend to render inactive bacteria which cause putrefaction, fermentation and other intestinal disturbances.

Bacterial reports and other literature upon request.

H. W. & D.—SPECIFY—H. W. & D.

Hynson, Westcott & Dunning BALTIMORE TRY

LANGTON RX OPTICAL WORK

With thoroughly efficient men and the best quality lenses at your command there is no reason why your prescriptions should not be satisfactorily filled.

Give us an opportunity to prove the high standard of Langton Service. It costs no more.

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Manufacturing Optician
419 Boylston St.

Boston, Mass.

Dr. Goodwin suggested that we have our fall meeting in October, and then monthly.

Dr. Fitzmaurice suggested that we ought to have a specialist on eye, ear and throat now and then.

Dr. Haskell moved that the Secretary be instructed to write to the Secretary of the Pennsylvania State Medical Association, in order to get the Pennsylvania laws pertaining to chiropractors.

There were present: Drs. Sturgis, Bolster, Clark, Call, Fitzmaurice, Haskell, Gauvreau, Girourard, O'Connell, Goodwin and Dumont.

L. J. DUMONT, M. D., Secretary.

The regular meeting of the Androscoggin County Medical Association, held at Hotel Dewitt, Lewiston, Maine, April 4, 1922, was called to order by the President, Dr. J. Sturgis.

At the conclusion of the banquet, Dr. John Sturgis, President of the society, introduced the speaker, Dr. Edward H. Nichols, Chief of the Third Surgical Boston City Hospital, who addressed the meeting. He spoke on head injuries and fractures. His talk lasted nearly an hour and was highly appreciated by the audience.

Drs. O'Connell, Barrell, Webber and Goodwin entered into a general discussion in the open forum after the speaking.

Those present were: Drs. J. Sturgis, Goodwin, Dupras, Webber, Andrews, Miller, Leathers, Sleeper, Renwick, Haskell, Desaulniers, Goodrich, Fitzmaurice, Twaddle, Bolster, J. Scannell, Chaffers, Hall, Grant, Barrell, Cunningham, O'Connell, Clark, Russell, Buker, Gauvreau, Pierce, Pelletier, H. Garcelon, Irish and Sprague of Turner, Plummer and Burr of Lisbon Falls, and Dumont.

L. J. DUMONT, M. D., Secretary.

HERE IS COMPLETENESS

FOR GENERAL OFFICE PRACTICE

Ten Pieces of Snow-White Steel Furniture

WITH SPECIAL OPERATING CUSHION

Made with True Betzco Thoroughness



\$50.00 Down-Easy Monthly Terms-Total \$200.00

Betzco Eleven Piece General Practice Outfit has been created to meet the demand for an adequate outfit for physical examination, diagnosis, treatment and operations. It is one of the most complete and most reasonable outfits of its kind on the market. Behind it is our absolute guarantee of satisfaction or your money back. It offers every convenience for a successful and remunerative office practice. Nowhere will you find such an outfit at such a price—think of it—eleven pieces of the most modern equipment for \$200.00. Every piece is thoroughly practical, up to date and remarkably sturdy. There is no finer finish than the Betzco snow-white, wear-resisting enamel that is baked onto every piece of this furniture. Master workmen cut the steel, bend it, weld it and enamel it. Every detail of construction and finishing receives the most painstaking attention. The quality rings true because all processes of manufacture are careful and exact.

THIS OUTFIT INCLUDES

Folding Chair Table - Offers practically all positions required in office practice and folds flat for easy transportation. Equipped with large easy-roll casters, leg holders and heel stirrups

Operating Cushion-Extra heavy, good leatherette covering, thick and comfortable.

Standard Model Instrument Cabinet—A modern, sanitary cabinet with four plate glass shelves, glass door and sides. Clean, constructed from heavy, selected furniture steel, electric and torch welded. Height, 58 inches; width, 20 inches; depth, 15 inches. Mounted on easy-roll steel casters

Platform Beam Scale-Has compound beam

Platform Beam Scale—Has compound beam and telescoping measuring rod giving height from 2 ft. 6 in. to 6 ft. 6 in. Scale capacity 300 bs. Inlaid rubber mat on platform.

Solution and Irrigator Stand—Provided with two revolving enameled immersion bowls in bracket and adjustable in height. Also equipped with complete irrigating outfit including balled percolator, tubing, cut-off and rubber tips, adjustable in height. Mounted on easy-roll steel casters. casters.

Specialist's Examining Chair—With headrest adjustable in height and mounted on rubber feet. Constructed with tubular wrought iron frame and heavy furniture steel seat and back.

Operator's Adjustable Stool-A sturdy stool with revolving seat and mounted on rubber feet, adjustable from 18 to 24 inches.

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Note.

PROGRAM OF STATE MEETING.

Monday, June 26, 1922. 8.00 P. M.

Meeting of the House of Delegates.

Tuesday, June 27, 1922.

9.00 A. M.

Call to Order.

Invocation.

Introduction of Visiting Delegates.

- "Elements Confronting the Abdominal Surgeon,"
 Walter H. Miner, Calais
 Discussion opened by John Sturgis, Auburn.
- 2. "Recent Developments in Blood Chemistry,"

 Herbert E. Thompson, Bangor

 Discussion opened by Mortimer Warren, Portland.
- 3. "Demography," Clarence F. Kendall, Augusta
- 4. "Some Observations on Infant Feeding as Seen in the Boston Floating Hospital in 1921," Charles N. Stanhope, Dover

2.00 P. M.

- 5. President's Address.
- 6. "Colles' Fracture," Charles C. Morrison, Jr., Bar Harbor
- 7. "General Practice; A Specialty and Opportunity,"

 Raymond V. N. Bliss, Bluehill

 Oration in Medicine.

"Diabetes," Elliott P. Joslin, Boston, Mass.

7.00 P. M.

Annual Banquet.

"Medical Cults,"

8.

Channing Frothingham



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WEDNESDAY, JUNE 28, 1922.

9.00 A. M.

1. Subject to be announced,

Willard C. Webber, Portland

2. Subject to be announced,

P. P. Thompson, Portland

3. "Hydrotherapy,"

William W. Bolster, Lewiston

4. "Mental Therapy,"

Lester P. Gerrish, Lisbon Falls

2.00 P. M.

1. Subject to be announced,

Miss Edith Soule

2. "The Cancer Control Problem,"

Edward H. Risley, Waterville

3. "Anesthesia,"

James T. Gwathmey, New York City

Notice.

PHILADELPHIA, PA., March 16, 1922.

DEAR SIR:—The dates for the next two examinations of the National Board of Medical Examiners are as follows:

Parts I and II, June 19, 20, 21, 22 and 23, 1922.

Parts I and II, September 25, 26, 27, 28 and 29, 1922.

Applications for the June examination should be in the Secretary's office not later than May 15th, and for the September examination not later than June 1st. Application blanks and circulars of information may be had by writing to the Secretary, Dr. J. S. Rodman, 1310 Medical Arts Building, Philadelphia, Pa.

Very truly yours,

J. S. RODMAN,
Secretary.

NEW AND NON-OFFICIAL REMEDIES.

During March the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies:

The Intra Products Co.:

Sterile Suspension Mercury Salicylate in Cacao Butter.

Sterile Suspension Mercury Salicylate in Olive Oil.

Meadows Oil and Chemical Corp.:

Ammonium Ichthyolate—Meadows.

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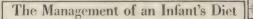
There are 768 members of the Maine Medical Association and readers of this Journal, located in every important city and town of this state.

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Think of the buying power of these physicians! If their average expenditure is only \$1,000, that amounts to \$768,000 a year. But medical supplies bought on physicians' prescriptions and goods purchased on their orders of recommendations for Sanitariums, Hospitals, Boards of Health, etc., would fully equal that amount, or a total of \$1,500,000.

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THE JOURNAL

OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association.

All papers, case reports, etc., should be typewritten when possible.

Proof-sheets will be sent to the author when requested.

Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

VOL. XII.

MAY, 1922.

No. 10

*EMPYEMA.

By Dr. PHILIP P. THOMPSON, Portland, Me.

On being asked recently to read a paper on the "Advances in Surgery Gained from our Experience in the World War," I went over the subject carefully in my mind, and it seemed to me that the two most definite gains were, firstly, in the treatment of fractures of long bones, especially the femur; and secondly, in the treatment of infected wounds.

In the treatment of infected wounds we came to discard all the commonly used antiseptics as of little or no value. We tried many new methods, from salt packs to "Bipp," but the only thing that stood the test and is being used almost universally to-day, not only in America, but on the continent, is the so-called Dakin's solution (0.47 solution of sodium hypochlorite). Those who have not had the experience with this solution, used regularly and with care, can little appreciate its value. In osteomyelitis, and particularly in empyema, it is almost a specific. So in this paper I wish to talk a bit about empyema and of the very great step in advance we have made in the treatment of both the acute and chronic cases since the advent of Dakinization of the cavities.

As those of us who entered the service early know to our sorrow, we had to learn a great deal about empyema before we learned how to handle properly the influenzal or streptococcal type, and at the start I

*Read before the Aroostook County Medical Society.

wish to say just a word about some of the things we did learn, as they are essential to the understanding of the treatment.

Empyema is indeed one of the oldest known diseases. The ancient Greeks and Egyptians describe in their writings many cases which were probably empyema necessitatis. Dr. Hedblom, of the Mayo Clinic, in writing recently on the subject, quotes from the writings of Hippocrates, Galen, Celsus, Pliny and others. He says Hippocrates describes the symptoms as "pain in the chest, high fever, cough and distress when attempting to lie on the sound side," which about completes the picture. Other signs which Hippocrates mentions, such as cedema of the feet and eyes and the diagnosis made by shaking the patient by the head and shoulders and getting a splash, show a trifle of confusion with other conditions. At any rate, Hippocrates had the courage to operate, and his method, as quoted by Dr. Hedblom, was as follows: The site of election was the third rib from the last, rather behind than in front. A superficial opening was made with a large bistoury and continued with a lancet wrapped in linen, only the point being free, or he used a trocar or the cautery throughout. He let out the pus and closed the opening with a tent of lint attached to a thread which was removed daily to let out the pus. On the tenth day he began injections with warm oil and wine and took out the tent where the fluid became glairy. Not too bad treatment, especially where we find in the next 1800 years no one improved on it. While Celsus advised removing pieces of the rib in old fistulæ, it was not until 1860 that resection of the rib was done as a planned treatment in acute cases. During all those centuries people either developed empyema necessitatis or died.

As to etiology, we knew before the war that empyema might complicate a traumatic hæmothorax, might occasionally follow a measles or scarlet fever in children, but that, as we usually saw it, followed a definite pneumonia, was due to the pneumococcus, and as to its diagnosis, Osler sums up the clinical picture when he says: "In pneumonia the practitioner should be on the alert if the crisis is delayed or the temperature rises after the crisis, if chills and sweats follow or if the cough changes to one of the paroxysmal type of great intensity. Many cases lingering along after a pneumonia for months or years, and with death certificates signed tuberculosis or septicæmia are, empyema."

In influenza, particularly the 1918 and 1919 epidemic, the clinical picture is not definite, as the empyema developed rapidly and often in conjunction with many other complications, as pericarditis, arthritis and even peritonitis and mastoid infection. Here physical examination, the X-ray, and the aspirating needle had to be relied on almost entirely. Developing early in the disease (not terminal as in pneu-

monia), the treatment had to be different, though many lives were lost, especially in the army, before this fact was determined.

In the diagnosis, bacteriological examination of the aspirated fluid is of the utmost importance from the standpoint of diagnosis and treatment. The influenzal type is due to the streptococcus hæmolyticus and requires especial handling. Therefore, we have two main types of empyema, that due to the pneumococcus and that due to the streptococcus. Of course other types are seen due to staphylococcus, typhoid bacteria, etc., and my very distinct remembrance of empyemata treated by the older method was that they always became contaminated with pyocyaneus and other green and foul-smelling pusproducing organisms.

The pathogenesis of empyema, as worked out from autopsies during the war, is interesting. The common old understanding was that the pleura in empyema became infected by pleural contiguity with the inflamed lung. Moschowitz advanced two arguments against this view: One, that this mode of infection does not occur in other closed serous cavities, as in the peritoneum from the appendix unless ruptured or its wall had been necrosed so as to allow bacteria to pass through; and two, that the lymph channels flow from the pleura to the hilum. Autopsies performed by Dunham at Camp McClellan during the war showed perforated subpleural abscesses in all cases. Sometimes these abscesses were large enough to leave a hole, perhaps only enough to allow the patient to get a taste or more of Dakin's solution during irrigation, or they might be larger and cause a bronchial fistula and pneumothorax.

The course of a case is believed by Moschowitz to be as follows: In every case of diffuse pneumonia there is some serous fluid in the pleura. As the lung is constantly moving this fluid is free, but, owing to the recumbent posture, it usually collects in the supradiaphragmatic and posterior portions of the thorax. If this fluid should have a subpleural abscess rupture into it, then it becomes purulent. Later encapsulation occurs, due to the deposit of fibrin at its periphery, and it is usually encapsulated behind. An absolutely free empyema of the entire cavity is almost never found in adults. I have seen it in children, who move about more. This encapsulation may be diffuse, localized or multiple.

Now before taking up the treatment a word about the physiology is absolutely essential. First, and most important, we must know that the mediastinum is not rigid and only offers the resistance of a column of water one cm. high. Therefore an opening in the chest wall before adhesions have formed that would cause the collapse of one lung would

perforce cause the collapse of both lungs. Secondly, a word about the two terms that you may recall from your lessons in physiology, vital capacity and tidal air. The vital capacity of lungs is the amount of air that can be breathed out by forced expiration after forced inspiration (what the spirometer will register). The tidal air is the amount we breathe in or out at normal inspiration or expiration. Now the normal vital capacity of the healthy adult is 3700 c.c. It has been estimated that he can withstand an opening in his chest wall of eight square inches. But the tidal air which we breathe in and out quietly is only 500 c.c. Should the vital capacity get down as low as the tidal air, I wouldn't want to open the chest wall. The point is this: In acute empyema, particularly of the type due to the hæmolytic streptococcus, all factors are present which make for a low vital capacity. Patients are cyanotic and suffering from air hunger and just about able to get their tidal air and that's all. Don't resect a rib then. That's what caused the tremendous early mortality in the army. But after the subsidence of the pneumonia the vital capacity is greatly increased, dyspucea and cyanosis have gone, and a larger opening is not serious, especially since the lung is prevented from collapsing by adhesions. The pleasing part of the war experience was that, after using the trocar in preliminary treatment, we usually found it was not necessary to make a larger opening.

Now knowing our physiology, and before having aspirated to corroborate our diagnosis and determine our bacteriology, it is most advisable, if possible, to take an X-ray. An X-ray examination is of great value and should be done before exploratory aspiration, if feasible, because in aspirating occasionally air is admitted into the chest and confuses the picture.

Some may ask, Why is a roentgen examination of assistance? Experience has shown:

- 1. At times, when physical signs suggest fluid, and even the needle shows pus, the X-ray may show only a pneumonia or a pneumonia and a lung abscess.
- 2. It may show several encapsulated collections of pus which require especial treatment.
- 3. It may show the presence of air as well as fluid, in which case bronchial fistula must be present, which would influence our treatment to be of more guarded prognosis.

The X-ray should be taken with the patient in the upright position. In following the case after operation, the X-ray is of especial value in definitely following the expansion of the lung or the factors causing delay.

During the war there was chosen from the Medical Corps an Empyema Commission, who, after careful investigation, announced three principles:

- 1. Avoidance of an open pneumothorax in the acute stage during the active pneumonia.
 - 2. Early sterilization and obliteration of the cavity.
- 3. Maintenance of the nutrition of the patient. If calories 1500-1700 c.c. negative nitrogen balance of twenty-one grams a day. *Diet should be over 3000 calories*.

To heal a cavity you must thoroughly sterilize it and obliterate it. Dakin's (0.5% neutral sodium hypochlorite) does both. The thickened pleura and fibrin deposit forms a corset-like membrane around the lung. Formerly, to aid expansion, recourse has been made to mechanical means, and various operations of decortication of the Delorme type have been done. They have occasionally yielded brilliant results, but have a high mortality and frequently have not cured the patient. They have the defect in the fact that the cavity is not sterilized. The lung may expand and the empyema recurs. On the other hand, even with pneumothorax, if sterile, the lung will expand.

The treatment is comparatively simple. Knowing the pathology and physiology, and, if possible, having an X-ray picture and a bacteriological examination of the aspirated fluid, it is just plain open and shut what to do, drain and use Dakin's solution. Some better antiseptic may in the future be found, but it almost seems to be ideal, in that it not only is a real antiseptic, the best we have for reducing bacterial growth, but also it dissolves the fibrinous masses and the limiting thickened lung pleura. There may be some who dispute its great advantage in acute empyema. I rather doubt if they have used it properly. There are none of large experience but who are enthusiastic in what it will do in chronic empyema. The statistics of the Mayo Clinic, as furnished by Dr. Hedblom in a discussion of the treatment of one hundred and fifty cases of chronic empyema, are most convincing. Fortunately in hyclorite we have a simple means of making Dakin.

Now as to the detail of treatment: First, in acute cases shall we resect a rib or use the trocar and catheter; in other words, shall we use a major or minor (intercostal) thoracotomy? Of course if the patient is very sick it would be most unwise to open the thorax. Aspiration, or better the trocar, are the only safe procedures. In a post-pneumonic case, with the patient in fair shape and the empyema probably encapsulated, it doesn't make so much difference, and yet I should be inclined to always try the intercostal operation. It is so simple there is no shock, no operative mortality, and the postoperative course and

care are so much simplified. For twenty years surgeons have been at work devising means of complicated valve drainage and suction apparatus to keep up negative pressure. It has now become so very simple and possible to keep up negative pressure so easily that I wish to present the method adopted. The simplest and best technique that I have found is that devised by Dr. Mozingo while he was at the head of the empyema section in the Walter Reed Hospital, Washington, D. C. It was thought of so highly by the government that they have made up lantern slides which they will send free to any medical society. I shall quote freely from his description.

In the average case the place of election is the eighth interspace in the post-axillary line, though where the diagnostic needle has shown pus is sometimes a better marker. At the site of the operation it is my habit to make an injection into the skin and deeper tissues of about 2 c.c. of ½% novocain solution. The skin may be frozen and there is almost no pain if nothing is used.

The next point is most important, and the one rarely heeded by novices. At the site of operation a stab is made through the skin and fascia, preferably with a curved bistoury, and the stab should not be over one cm, in length and better about one-half cm. The cannula is now smeared with vaseline to prevent the edge of the tiny wound from clamping it. The patient has the arm of the same side raised and is told to take a deep breath and hold it and the trocar is inserted between the ribs. The trocar is quickly removed and the tube immediately inserted into the cannula. Previous to insertion, the end of the tube is clamped by a small forceps, or better, a Dieffenbach clamp. The cannula is quickly removed, leaving about four and one-half to five inches of tube inside the chest. Care is used after removing cannula from chest wall that the rubber tube is pinched with a pair of thumb forceps and then the Dieffenbach clamp is removed, the cannula slipped off and the clamp reapplied. The tube is held airtight by the contracting wall of the wound, and if the technique is as directed, no pus will escape around it for five or six days at least.

The dressing is very small. The smallest size (#0) safety pin is thrust through the edge of the tube next the chest wall. Two thin pads of gauze, each about one inch square and cut to the centre are placed, one under and one above the pin. Then a pad about two inches square of twelve layers of bandage gauze is perforated in the centre with the trocar and slipped snugly over the tube down on to the outer gauze square and the whole pushed against the chest wall. This is held down by four strips of adhesive each 1½ inches wide and 3½ inches long. The end of the tube is kept sterile by slipping over it the

rubber bulb of a medicine dropper and clamping it on with a Dieffenbach clamp.

The patient can now lie in any position comfortably and there is no chance of the clamps or tubes becoming loose. The negative pressure is maintained, and you do away entirely with the changing of large foul dressings. When the patient's condition warrants it, he can be up and about.

The whole secret of this method lies, of course, in the after-treatment. Men used to the older method with rib resection will say that what you want is drainage adequate and large, and the idea of draining off a quart or more of pus through a small catheter is against surgical principles. It would be without Dakin's solution and certainly in the postpneumonic encapsulated empyematic it works well to resect a rib.

Matthews states, "I believe the positive pressure of forced expiration and coughing is the only efficient force expanding the collapsed lung." The lung, like a toy balloon, expands only when someone blows into it. As clinical proof he cites what we all so often see during a major thoractomy if the patient coughs, when the pus is driven some distance from the wound. His conclusion is that "A wide thoractomy will not delay, but will hasten healing by favoring the early expansion of the lung, and that valve action of the dressings so essential to healing is best obtained by the use of a wet gauze dressing over the end of the tube. Hitzrot states that the drainage tube should not be larger than the opening of the glottis, as then unless encapsulated collapse of the lung is inevitable, and without a fixed mediastinum, as I have shown you before, there may be collapse of the other lung with serious results.

Now to return to the after-treatment. Many forms of suction apparatus have been devised. They are, as a rule, too expensive, too complicated, and too easily gotten out of order, and then if they fail to suck a cushion of air forms, expansion of the lung is inhibited and drainage becomes dammed up. Probably the gravity siphon drainage of Dr. Kenyon, with the two-bottle system, is the best of these methods.

But the beauty of Dr. Mozingo's method is its simplicity, and the fact that it can be thoroughly checked up. He has found that with a good half ounce syringe, particularly the Asepto syringe (a rubber bulb syringe), you can exert enough suction to lift water to a height of eight feet in a six-minute tube. With this syringe the pus can be drawn off, the cavity irrigated out, and negative pressure established and maintained. It will prevent pneumothorax and with it negative pressure can be maintained indefinitely. When the tube is opened twenty-four hours after treatment is started, air is heard to enter. That the cavity can be completely emptied is clearly demonstrated by

injecting a known quantity of fluid and then being able to recover it completely, regardless of the position of the patient. Air can be recovered as well as fluid.

In detail, the after-treatment is as follows: At the time of operation, by means of the syringe the pus is withdrawn and 50 to 200 c.c. of 1-10 hyclorite solution (according to size of the cavity) is injected, and agitated by means of the syringe. This is withdrawn and the process repeated until the fluid is clear. This same process is carried out two to five times daily, and at each time when the fluid is clear and has been withdrawn an amount of the hyclorite solution equal to 1/5 the size of the cavity is put in and left ten to twenty minutes. This is then withdrawn, the maximum negative pressure re-established and the clamp applied. The hyclorite solution may be gradually increased in strength to 1-7, which is about a Dakin's solution strength.

Each patient should have kept for his use a clamp, a tissue forceps, and a wide-mouth bottle containing the hyclorite solution, in which is kept the individual syringe.

The method is thus simple, can be used on sick patients in the home or in country practice. Aschner, in reporting on minor intercostal thoracotomy in a series of cases at the Mt. Sinai Hospital, showed that it offered over the former accepted method of rib resection the following advantages:

5% decreased mortality.

10% decreased secondary operations.

15% increased cures by primary operation.

Greater comfort of patient.

Cleanliness of method.

Saving time and material.

Eliminates one source of chronic empyema sinuses—disease of ribs.

At the New York Hospital the following statistics on intercostal thoracotomy vs. rib resection are as follows:

Intercostal		Rib
Thoracotomy		Resection
Cases died,	13%	19%
Cases cured,	61%	55%

My small experience since adopting this method consists of fifteen cases. In none have I had to resect a rib, and in two only have I had to insert larger drainage tubes. The cases have averaged two and one-half weeks' drainage. Four of the cases have been in the country, and these did especially well. One case, a staphylococcus empyema, was cured after three aspirations.

In chronic empyema the greatest help is to clean up the cases with Dakin's solution. Often they will heal completely. If not, by use of a rib spreader, the lung can be decorticated or allowed to expand, as I have found, successfully by making gridiron incisions of the visceral pleura according to the method of Ransohoff.

*ABSTRACTS FROM RECENT MEDICAL AND PUBLIC HEALTH PAPERS.

I. LABORATORY RESEARCH.

A Consideration of Arsphenamin and Certain Other Organic Arsenic Compounds in the Treatment of Syphilis. Roth summarizes:

- 1. There is a well-marked individual variation in the susceptibility of animals to both arsphenamin and neoarsphenamin.
- 2. Neoarsphenamin is so unlike arsphenamin in its biological behavior that it should not be regarded as arsphenamin in a form convenient for administration.
- 3. Acid solutions of arsphenamin are at least two to four times as toxic as properly alkalinized solutions, the toxicity increasing directly with the concentration.
- 4. The toxicity of properly alkalinized solutions of arsphenamin is slightly less toxic as a 0.3 per cent. than as a 2 per cent. solution.
- 5. The Ehrlich method of alkalinizing arsphenamin, in which the monosodium salt is formed, produces a more toxic solution than the present method used in the United States, in which the disodium salt is formed.
- 6. The use of impure sodium hydroxide should be avoided in making arsphenamin solutions.
- 7. Increasing the rate of injection of properly alkalinized arsphenamin greatly increases its toxicity.
- 8. Properly alkanlinized arsphenamin solutions in many cases are more highly toxic immediately after their preparation than after the lapse of about twenty minutes.
- * Reprint from "Abstracts from Recent Medical and Public Health Papers," prepared by the Division of Venereal Diseases, U. S. Public Health Service.

- 9. Shaking alkaline aqueous solutions of arsphenamin and aqueous solutions of neoarsphenamin in the presence of air increases their toxicity markedly.
- 10. Neoarsphenamin is a relatively unstable compound in sealed ampule and after an indefinite period may show changes in (1) color, (2) mobility in ampule, (3) solubility, (4) toxicity, and (5) odor.
- 11. Difficulty or incompletely soluble preparations of neoarsphenamin may be highly toxic and should not be used clinically.
- 12. In some cases neoarsphenamin is ampule may be rendered insoluble by incubation at 37° C. for about a year.

The margin of safety between the therapeutic and lethal dose of arsphenamin is extremely narrow, and this makes it necessary to regard arsphenamin as a potentially dangerous therapeutic agent, even though every precaution is taken to handle it properly. (George B. Roth, Public Health Reports, August 19, 1921.)

Experimental Observations upon the Effect of Cholesteremia on the Results of the Wassermann Test. Craig and Williams experiment to find whether amounts of cholesterin in the blood will produce a positive Wassermann as is claimed by several investigators. Rabbits used for the experiment were fed cholesterin for eighteen days. There was a persistently negative Wassermann. Authors conclude that there is no relationship between the cholesterin content of the blood serum of rabbits and the results of the Wassermann test. References. (Charles F. Craig and William C. Williams, American Journal of Syphilis, July, 1921.)

II. DIAGNOSIS.

Studies Concerning the Influence of Arsenical Preparations on Cutaneous Tests. Strickler concludes:

- 1. The repetition of a luetin test in nonsyphilitic patients is capable of producing positive luetin tests in about 21 per cent. of our subjects.
- 2. The intravenous administration of arsphenamin apparently stimulates the production of a luctin test in nonsyphilitic patients, and in our series we were able to produce 53 per cent. positive luctin tests following the form of intravenous specific therapy.
- 3. In our experience the intravenous administration of cacodylate of soda acts in the same manner as arsphenamin, only more feebly.
- 4. The repetition of the tuberculin (von Pirquet) test may produce a positive finding, but very infrequently, occurring only once in our series of fourteen subjects.
 - 5. The intravenous administration of arsphenamin is capable of

producing a positive tuberculin (von Pirquet) test, previously negative. This occurred in three instances in our series of ten patients.

- 6. The anaphylactic food test made by either the endermic or scratch method does not seen to be influenced by the intravenous administration of either arsphenamin or cacodylate of soda. Our investigation of this phase of the problem is, however, not yet complete.
- 7. We are now engaged in studying the effect of the arsenicals given by mouth on the luetin, tuberculin and anaphylactic food tests. (Albert Strickler, Archives of Dermatology and Syphilology, August, 1921.)

Luetin. Ward concludes that the complement fixation and the luetin test should be made simultaneously in every suspected case of syphilis. Reviews the literature and presents report of investigations conducted at the Detroit Board of Health Venereal Clinic for Men. (Herbert C. Ward, American Journal of Syphilis, July, 1921.)

The Diagnosis of Syphilis. Hazen makes many valuable suggestions helpful in establishing a correct diagnosis. Author notes unreliability of the Wassermann, emphasizes need of complete physical examination. Other laboratory tests mentioned. (H. H. Hazen, American Journal of Syphilis, July, 1921.)

Spontaneous Variations in the Wassermann Reaction. Thaysen applied the Wassermann test repeatedly to sixty-six persons during the course of a year or more. All had been under prolonged observation for many years. Syphilis was known in twenty-three. The conditions and the technic were scrupulously alike in all the tests, and yet the reactions showed a wide range from negative to positive or dubious, with fluctuations from time to time. The closest analysis failed to reveal any causes for the variations in the responses. Author states Craig's communication in the Journal, March 10, 1917, is the only report of similar research which the author has been able to find in literature. (T. E. Hess Thaysen, Acta Medica Scandinavica, Stockholm, June 17, 1921; Journal A. M. A., August 27, 1921.)

Spinal Puncture in Diagnosis and Treatment. Bastron, reviewing the opinions of syphilographers on the value of spinal puncture, finds that many agree that it is of great diagnostic value in early syphilis; that in late neurosyphilis the diagnotic value is beyond question; and that authorities are practically unanimous in urging that no case of syphilis be discharged as cured without one or more spīnal fluid examinations.

The status of intraspinal therapy in neurosyphilis is still uncertain; and the curative value of spinal drainage is disputed. References. (Carl H. Bastron, American Journal of Syphilis, July, 1921.)

Complement-Fixation Tests with Two Antigens. Larkin compares results of a series of tests for syphilis with two antigens. Tests were made in laboratory of the Washington State Board of Health. Results are tabulated. Author concludes that two antigens (in these tests a crude alcoholic extract and a cholesterinized extract were used) form a valuable check one upon the other. Cholesterinized antigen gave a higher percentage of positive and doubtful reactions. Used in connection with the crude alcoholic antigen it is of great value in detecting slight reactions in tested cases where further treatment is indicated. (Mae E. Larkin, American Journal of Syphilis, July, 1921.)

Critical Review: Notes on the Wassermann Reaction. (From the Bacteriological Laboratory University of St. Andrews, University College, Dundee). An account of the evolution and present position of the Wassermann reaction designed to make as plain as possible to practitioners of medicine the principles upon which this test is based. (W. J. Tulloch, Edinburgh Medical Journal, July, 1921.)

III. TREATMENT.

A Review of the Literature and a Discussion of Silver Arsphenamin. Michelson and Siperstein review the literature, which is confined to the German. Silver arsphenamin was suggested by Ehrlich, and finally elaborated by Kolle. The drug was first used clinically in March, 1918. Results of investigation by Kolle, Fabry, Galewsky, Gennerich, Hahn, and many others are given. Authors conclude, after a careful survey of the literature and as a result of a limited personal use (250 ampules). "We feel that we may safely state that silver arsphenamin is an efficient spirocheticide, which has a pronounced effect on the visible lesions of syphilis." The consensus of opinion of the many observers is that in the majority of cases of fresh syphilis a positive reaction becomes negative after the first course of from six to ten injections of silver arsphenamin.

There is considerable variation in the dosage. An initial dose of from 0.05 to 0.1 gm. for a person of average weight is best, with a routine dose of from 0.2 to 0.25 gm. Authors recommend technic: Dissolve the necessary dose in 10 c.c. of sterile distilled water, draw into a 20 c.c. Luer syringe, make venipuncture, aspirate about 10 c.c. of blood, and reinject the entire solution slowly.

One of the distinct advantages is the absence of the odor which characterizes the other arsphenamins. This odor has made it impossible, or at least impracticable, to administer arsphenamin to certain patients.

There is no difficulty in determining the oxidized product. A

spoiled product has a dull, muddy, grayish-brown appearance, instead of the rather sparkling, clear, dark brown solution.

The interval of choice is from four to seven days, and the number of doses in a course varies greatly.

The majority of observers are not in favor of using silver arsphenamin and mercury simultaneously.

There is apparently no reaction due to silver arsphenamin which is peculiar to that drug and has not been noticed with any of the arsphenamin group, with the possible exception of argyria.

Silver arsphenamin is a more complex salt than any of the other arsphenamins and the physician must be on the alert for the slightest sign of intolerance.

Although the drug has been highly recommended by neurologists, nothing conclusive has been published indicating a selective action on neurosyphilis. (H. E. Michelson and David M. Siperstein, Archives of Dermatology and Syphilology, August, 1921.)

A New Treatment for Syphilis. Drs. Levaditi and Sazerac, of the Pasteur Institute, presented a communication to the Academy of Sciences concerning the use of a new substance in the treatment of syphilis, namely, potassium sodium bismuthate. This substance is still in the experimental stage. Intravenous injections of a watery solution of this compound were made in three syphilitic rabbits. The following day no spirochetes could be found in the blood. No recurrence four months later. A prompt cure of the primary symptoms of syphilis in man has been brought about, also the disappearance of the spirochetes from the blood. But no final conclusions, the author states, can yet be drawn from these experiments for several years. (Paris Letter, Journal A. M. A., July 23, 1921.)

A Valuable Method of Treatment in Selected Cases of Syphilis. Guy gives details of intensive course of treatment. It is essential that the patient be a young and vigorous adult in first-class physical condition. Uses arsphenamin and salicylate of mercury. (W. H. Guy, American Journal of Syphilis, July, 1921.)

Experience with Sodium Arsphenamin (Diarsenol). Michelson and Siperstein review the literature which is confined to the German, with the exception of one preliminary report by Wright and Michelson. Authors give results of their observations. A total of 545 injections was made on sixty-six patients (twenty-two with primary syphilis, thirty with secondary syphilis, nine with tertiary syphilis, and five with neurosyphilis). All patients showed active lesions or symptoms of syphilis when sodium arsphenamin therapy was instituted.

All of the injections were made intravenously with a Luer syringe

of 10 c.c. capacity. Drug was dissolved in sterile, freshly distilled water. Drug was used in three ways: (a) Three doses (from 0.45 to 0.6 gm.) were given at twenty-four or forty-eight hour intervals, followed by twelve mercuric salicylate (0.5 c.c.) injections. (b) Eight doses (0.45 gm.) were given at three day intervals; no mercury was used in this group. (c) A weekly dose (0.6 gm.) was given for periods varying from eight to twelve weeks. Mercury was not used in this group either. No severe reactions were encountered resulting from injections of sodium arsphenamin. There were few retarded reactions, there was no case of jaundice. Dermatitis was noted twice, once rather severe, but not severe enough to result in an exfoliative dermatitis. Two patients who gave dermal reactions to neoarsphenamin also gave dermal reactions to minute doses of sodium arsphenamin. Gives report of five cases. Authors conclude:

- 1. Sodium arsphenamin is a readily soluble, easily administered and safe preparation.
- 2. Sodium arsphenamin exerts a marked influence on clinical manifestations of syphilis.
- 3. Courses of sodium arsphenamin should be supplemented with mercury.
- 4. Therapeutic efficiency is apparently equal to that of the other arsphenamins (clinically).
- 5. The effect on the Wassermann reaction is about on a par with that of the other arsphenamins. (Henry E. Michelson and David M. Siperstein, Archives of Dermatology and Syphilology, August, 1921.)

Administration of Neosalvarsan. Bostick discusses the chief danger and difficulties in giving neosalvarsan, which are:

- 1. The drug is contaminated by air in an imperfectly sealed tube and becomes oxidized or altered:
- 2. The drug becomes oxidized or altered prior to administration after ampule is opened;
 - 3 The solution is not delivered into the venous circulation.

Author gives in detail methods by which these difficulties may be overcome. The greater part of the article is devoted to the problem of introduction of the drug into the vein. (J. B. Bostick, United States Naval Medical Bulletin, July, 1921.)

Paresis Treatment by Arsphenamin and Mercury. Bonner reports investigation covering a two-year period made at the Warren State Hospital, Pennsylvania. Weekly treatments were given twenty-eight males diagnosed general paresis, beginning with 0.3 gm. arsphenamin, to the maximum 0.6 gm. Each case also received, for one month, potassium iodide in a dosage of thirty grains per day.

The Wassermann reaction was influenced but little in the purely paretic types, even with the most intensive treatment.

Author summarizes: (1) Course of duration of bedridden stage seems lessened by treatment, and dying patients in this stage do not linger so long in usual wretched state. (2) Duration of ward life seems lengthened. (3) Results do not warrant a change in prognosis. (Clarence A. Bonner, Boston Medical and Surgical Journal, July 14, 1921.)

Interim Report of the Neurosyphilis Investigation of the Massachusetts Commission on Mental Diseases, by Oscar Raeder, M. D., Bulletin of the Massachusetts Department of Mental Diseases, Vol. IV, No. 2, April, 1920. Author concludes: In 428 cases of neurosyphilis treated during a period of four years, 129 cases, or 30 per cent., showed definite benefit: 125 cases are under treatment at hospitals, of which a certain percentage can be expected to show similar improvement. Among ninety-three cases that have drifted away, another definite proportion can be presumed to have benefited from treatment. There are two definite groups of cases of neurosyphilis, the early, or psychopathic hospital group, and the advanced committable or custodial group. The early case is not met in insane hospitals, except in those which conduct out-patient departments. These cases frequently come to professional attention through the field of general medicine. Early diagnosis gives the greatest promise of successful results; however, there is a distinct, though not large, percentage of advanced cases which yield to intensive treatment. (Boston Medical and Surgical Journal, July 21, 1921.)

To Ward off Accidents in Arsphenamin Treatment. These phenomena seem to be the manifestation of an upset in the colloidal balance in the blood serum with resulting flocculation. The most successful and harmless measure to ward off this, Cheinisse says, is Sicard's preliminary injection of 30 c.c. of physiologic saline containing 0.6 or 0.75 gm. of sodium carbonate. The arsenical is injected at once afterward through the same needle. Even after an arsphenamin shock has developed an immediate injection of 10 c.c. of a 10 per cent. solution of sodium carbonate may abort it. Kopaczewski has found that the addition of three or four drops of ether to the arsenical seemed to ward off all acute arsphenamin reactions in twenty-seven patients thus treated. In sixteen other patients the same effect was realized by dissolving the arsenical in a 20 per cent. solution of saccharose, but a slight chill followed in one case. In sixty other patients he injected 3 c.c. of ether subcutaneously ten minutes before the arsenical or 5 c.c. of camphorated oil half an hour before it. In four of this group there was a slight acute reaction. (L. Cheinisse, Presse Medicale, Paris, June 25, 1921; Journal A. M. A., August 13, 1921.)

To Ward off Reaction to Arsphenamin, etc. Sicard and his coworkers have been making a special study of means to ward off the shock from anaphylaxis or digestion hemolysis. They found that one of the most reliable is a preliminary intravenous injection of sodium carbonate before the injection of horse serum or an arsenical. Another even more reliable means is to limit the shock reaction to one limb by applying a constricting band to the root of the limb in which the anti serum or arsenical is injected. The hemolysis occurs, but it is restricted to this limb, and is less harmful, while it protects the rest of the organism against further shock when the tourniquet is slowly removed five or six minutes afterwards. In two patients presenting constantly a severe nitritoid crisis after every injection of neoarsphenamin this simple measure tided the patients past this danger point, and the course of treatment could be continued without further apprehension. (Sicard, Paraf and Forstier, Bulletins de la Société Médicale des Hôpitaux, Paris, May 27, 1921; Journal A. M. A., July 23, 1921.)

Stomatitis and Aplastic Anemia due to Neoarsphenamin. Moore and Keidel present complete history of a patient who developed a fatal aplastic anemia after neoarsphenamin. The literature reveals only three reports of similar cases, aside from those already reported from this clinic. (Syphilis Department of the Medical Clinic, Johns Hopkins Hospital). Authors believe that reactions of this type are by no means so rare as the few reports in the literature would indicate. While authors have nothing to offer regarding the treatment of these reactions, a means for their early recognition on the basis of the blood picture represents a definite step toward the prevention of the more severe forms. Damage to the bone marrow, as indicated by changes in the blood picture, is also present in the majority of patients reacting to arsenical drugs, with a rash of the exfoliative dermatitis groups, and these blood changes differ only in degree from the maximally severe reaction, as seen in this case.

In a previous paper stress was laid on the recognition of the prodromal symptoms of reactions of this group. Further observation and a study of the blood have revealed a slight decrease in neutrophile cells, eosinophilia from 5 to 8 per cent., a slight increase in the large mononuclear transitional group and the presence of numerous fragile leukocytes. The necessity for caution in further treatment was thus strongly emphasized. (Joseph Earle Moore and Albert Keidel, Archives of Dermatology and Syphilology, August, 1921.)

Recurrence in Infantile Gonorrhea. Valentin relates her experi-

ences in the treatment of 161 cases of infantile gonorrhea. Cause for recurrence she finds in the fact that gonococci in the glands or neighboring organs were not easily accessible to the treatment. In sixty-one of the children in whom recurrences occurred, gonococci were found to persist in the rectum. (I. E. Valentin, Deutsche medizinische Wochenschrift, Berlin, June 2, 1921; Journal A. M. A., July 30, 1921.

Effect of Antivenereal Prophylactics. Schumacher discusses the relative efficiency of various solutions and ointments. He finds in general that the former are more effective. Warns against danger of stricture from the use of prophylactics. (Schumacher, Deutsche medizinische Wochenschrift, Berlin, June 2, 1921; Journal A. M. A., July 30, 1921.)

IV. SPECIAL MEDICAL NOTES.

Syphilis and Tuberculosis. Hollander and Narr report a case in which the patient showed gross syphilitic and tuberculous lesions. Authors review the available statistics of the coexistence of syphilis and tuberculosis and analyze reports of cases of tuberculous patients in whom the blood Wassermann test was performed. On the 6,324 cases examined 494, or 10.36 per cent., were found definitely syphilitic. On account of the lack of differentiation of strength of the blood Wassermann reaction there were some cases classed as probably syphilitic. Combining the probably syphilitic with the positive, 830 gave a positive reaction of any strength. This makes the incidence of syphilis in all cases investigated 17.81 per cent. (Lester Hollander and Frederick C. Narr, Archives of Dermatology and Syphilology, August, 1921.)

The Syphilitic Factor in Essential Epilepsy. Novick makes study for the purpose of determining whether syphilis is a factor in a considerable number of epileptic cases, as evidenced by history of infection, clinical manifestations, and corroborative proof of the Wassermann tests, and also the frequency of a positive Wassermann alone in the blood serum of epileptics in the absence of clinical manifestations of syphilis.

The diagnosis of the cases under consideration has been established by constant and careful observation in U. S. P. H. S. Hospital, No. 34. The clinical observations of the cases were in no way influenced by the laboratory. The incidence of frank syphilis associated with epilepsy in a series of 231 cases was found to be about 2.2 per cent. The occurrence of a syphilitic factor as evidenced by repeated positive Wassermann tests alone, in the absence of clinical support, was found in 2 per cent. of the cases. (N. Novick, Public Health Reports, August 26, 1921.)

Syphilis as Etiologic Factor in Epilepsy. Bambaren draws the balance sheet of the conception of syphilis inherited or acquired, as a factor in epilepsy, citing testimony for and against it, including a number of articles in the Journal and Levy Bing's thirteen cases of essential syphilis with an unmistakable history of epilepsy in all, and remarkable improvement under treatment for syphilis. He remarks in conclusion, "How difficult it is for new ideas to gain a foothold," as his comment on Strumpell's denial that inherited syphilis has ever been conclusively demonstrated as a factor in essential epilepsy. (C. A. Bambaren, Siglo, Medico, Madrid, May 21, 1921; Journal A. M. A., August 6 1921.)

A Case of Syphilis Innocently Acquired with a Primary Lesion on the Palm of Left Hand. Patient a pharmacist's mate, assigned to duty in the venereal ward in one of the base hospitals. While cleaning glass slides which had smears from cases of chancres, one broke and penetrated palm of the left hand. The wound was cauterized with phenol. Later a lesion developed, which was trimmed with safety razor and cauterized with silver nitrate. Lesion disappeared in about two weeks. Two weeks later, a small macular rash appeared on the chest. Wassermann test at this time reported positive. Since then patient has been receiving antisiphilitic treatment, and no physical signs of syphilis have appeared. Two blood Wassermann tests taken since show 4 plus. (J. W. Jones, United States Naval Medical Bulletin, July, 1921.)

Recent Progress in Anatomy, Physiology and Pathology of Child-hood. Holmes reviews the literature. Of syphilis he summarizes:

The subject of prenatal syphilis is considered by Kolmer (Kolmer, J. A., Prenatal Syphilis, with a Plea for its Study and Prevention, Amer. Jour. of Diseases of Children, 19:344, May, 1920. He cites Vedder's estimate that from 10 to 28 per cent. of men from class of unskilled labor and the trades, varying in age from eighteen to forty years, are syphilitic, as well as 10 per cent. of men of better education. He also states that among presumably healthy young women the percentage of syphilitic infections fluctuates between 2 and 20 per cent., depending on age, marital condition, education and social status. The incidence in negroes is estimated to be at least double the figure for whites.

Probably one miscarriage out of every ten involves a syphilitic individual. According to Jeans (Jeans, P. C., Cerebral Involvement in Hereditary Syphilis, Amer. Jour. of Diseases of Children, 18:173, Sept., 1919) at least 75 per cent. of the offspring of syphilitic families are infected. Thirty per cent. of the pregnancies terminate in death at or before term. Moreover, among syphilitic children the death rate is

given about double the normal, i. e., 30 per cent. It is estimated that only about 17 per cent. of all pregnancies in syphilitic families result in living nonsyphilitic children that survive the period of infancy.

It is found that from 2 to 6 per cent. of hospital and dispensary children give a positive Wassermann reaction, with higher percentages among backward, mentally deficient and sick children. Kolmer says it would seem safe to assume 5 per cent. of syphilis in the infant population, so far as detectable.

Cerebral involvement in hereditary syphilis was considered by Jeans a year ago. (James B. Holmes, Amer. Jour. of Diseases of Children, July, 1921.)

Fate of Children with Congenital Syphilis. Husten emphasizes the necessity for enforcing compulsory treatment of children with congenital syphilis. In his experience at Freiburg with thirty-nine cases in the five years ending 1918, half the children soon died from intercurrent disease, and only sixteen are known to be living now. A third died of those given partial treatment, but only one of those given thorough courses. Of the fourteen still living and re-examined personally, 50 per cent. are imbeciles or idiots. He endorses the bill now pending in the German legislature, which makes notification compulsory for all children born with congenital syphilis, and also makes treatment of venereal disease compulsory and gratis. (C. Husten, Archiv für Kinderheilkunde, Stuttgart, May 21, 1921; Journal A. M. A., July 23, 1921.)

Syphilis in the Third and Fourth Generation. J. Audrain publishes in the Bulletin of the French Société de Dermatologie, Feb. 10, 1921, p. 85, the tabulated details of thirty families through three or four generations from a progenitor with unsuspected syphilis. Comparing the different families and generations confirms the law of persistent localization of the lesions and their periodicity, and the rarity of pain in them; also a peculiar moral and physical energy, a functional excitation which may be felt in all the organic systems and even in the exaggeration of the appetite and of the "ego". (Journal A. M. A., August 20, 1921.

Pernicious Anemia. Levine and Ladd find that of 141 cases of pernicious anemia only six were positive when tested by the Wassermann reaction. The average incidence of a positive Wassermann reaction in all medical admissions to this hospital (Johns Hopkins Hospital) is about 12 per cent., making the incidence among these cases one-third of the average. Antisyphilitic treatment has had no effect upon the course of the disease. The conclusion is warranted that in these cases, syphilis has borne very little relation to the development of pernicious

anemia. (Samuel A. Levine and William S. Ladd, Bulletin of the Johns Hopkins Hospital, August, 1921.)

Case of Heart-Block due to Gumma. A Wassermann test proved very strongly positive. Finally "a provisional diagnosis of gumma of the heart was arrived at and the patient put upon iodide and inunctions of mercury but without benefit. The signs of cardiac failure increased, fluid accumulated at the lung bases, the liver and spleen became enlarged, breathlessness increased, cough became troublesome, accompanied by blood-stained, frothy sputum. The blood pressure fell to 97 systolic, 44 diastolic. The pulse rate varied between 24 and 32. The patient complained of great weariness and thirst, and death occurred eighteen days from the sudden onset of symptoms."

Post-mortem confirmed the diagnosis, although the actual presence of the treponema pallidum was not demonstrated. (R. L. Girdwood, *Medical Journal of South Africa*, May, 1921.)

Old Syphilitic Myocarditis. Lenoble states that in this condition specific treatment is futile and may do harm. The onset of disturbance is abrupt and violent, and the periods of improvement brief. There may be a general weakness, which seems to be an essential characteristic of neglected syphilis. There is dyspnea on exertion and sometimes intense cyanosis of face and extremities. The attacks recur frequently, and there may be precordial pains of the angina pectoris type. Death occurred suddenly in one of his nine cases of the kind. (E. Lenoble, Bulletin de l'Académie de Médicine, Paris, June 14, 1921; Journal A. M. A., August 6, 1921.)

Weight During Treatment of Syphilis. Almkvist records the weight twice a week in all syphilitics taking treatment. This shows that the weight generally declines under mercurial treatment and increases under arsphenamin. It seems wise to counteract the decline in weight with extra nourishing food and means to stimulate the appetite, reducing the dose of mercury if other measures are not effectual. (J. Almkvist, Hygiea, Stockholm, June 16, 1921; Journal A. M. A., July 30, 1921.)

Venereal Disease in the Eighteenth Century. Description of a book entitled: "A Treatise on the Venereal Disease," by N. D. Falck, Surgeon, London. Printed in 1772. Dickenson gives various entertaining extracts and concludes that the treatment for gonorrhea has made no material advance in the last 150 years. Finds also that Dr. Falck actually recommended an "antacrid injection" and mercurial ointment as preventives, "from which it appears that Metchinkoff's discovery was not exactly original." (G. O. M. Dickenson, Journal of the Royal Naval Medicine Service, London, July, 1921.)

V. ADMINISTRATIVE AND PUBLIC HEALTH NOTES.

Industrial Application of Army and Navy Venereal Disease Records. Everett and Clark make the statement that "Venereal diseases are a much greater handicap in industry than existing industrial statistics indicate. This inference may be properly drawn from the 1920 reports of absences from duty in Army and Navy. In the former more than 13 per cent. and in the latter 15 per cent. of all absences were from venereal diseases." The report of the Army shows a loss from duty of 871,533 days in 1919 because of these diseases. The average daily absence was 7.78 men per 1,000. In the entire Navy during the same year 558,421 sick days were attributed to the venereal diseases, accounting for a daily average of 1,533 individuals absent from duty. Venereal diseases rank second in both services as causes for absence.

Few industrial plants maintain records of specific causes of disability among employees. Few, if any, of the usual aids toward accurate adjudgment and computation are present in the majority of cases of venereally infected workers in industry. In one company employing 18,000 persons, whose records are considered among the best, the venereal diseases accounted for less than one-half of 1 per cent. of all sickness reported during the year.

Army and Navy statistics are of interest and value in this regard, because adequate reports are available of health conditions in these two large groups of men. Because of compulsory examination and because infected individuals are required to take treatment, there is, in all probability, more immediate absence from duty than would occur in an industrial group where treatment is voluntary. On the other hand, chronic gonorrheal conditions and latent syphilis are more liable to occur in industrial workers, and the resulting losses in time, money and suffering are inestimable. (Ray H. Everett and Mary Augusta Clark, American Journal of Public Health, September, 1921.)

Some Influences of the World War on the Future of National Health. President's address, Association of Military Surgeons, 1921.

Dr. Kerr, speaking of venereal diseases, said: "With a view to ascertaining whether increase was manifest among arriving aliens since the war, intensive examinations were made of representative groups of steerage passengers arriving at the Port of New York. Among 29,440 examined from February 13, 1921, to May 15, 1921, inclusive, a total of 124 were found to have gonorrhea, chancroid, or syphilis in active form, as verified by laboratory tests, a total of 0.42 per cent. A like intensive examination of 11,794 steerage passengers during the fiscal year 1915 had shown 0.31 per cent. of venereal infection.

It should be borne in mind, however, that steerage passengers generally come from the peasant classes whose marital and social customs militate against infection. Furthermore, the conditions under which their travel is performed and the fact that they are subject to deportation if infected must tend to reduce the amount of infection among this class of arrivals." (John Walter Kerr, Military Surgeon, August, 1921.)

Resolution of All-America Conference. (International Journal of Public Health, July-August, 1921.)

All-America Conference on Venereal Diseases. Report on the Proceedings and the Resolutions of the General Conference Committee. (Charles Bolduan, Public Health Reports, July 15, 1921.)

Venereal Disease Control. Pierce gives résumé of the work of the Division of Venereal Diseases, U. S. Public Health Service. The period covered is from the creation of the Division by Act of Congress in July, 1918, to the early months of 1921. (C. C. Pierce, American Journal of Syphilis, July, 1921.)

The Hospitals and Venereal Diseases. The trustees of the American Hospital Association have passed resolutions urging that "all general hospitals admit venereal-disease patients as other patients and enter these diagnoses as other diagnoses on histories whether primary or complicating and also develop sufficient dispensary service to provide care for the ambulatory cases and the ambulatory stages of the cases treated in the hospitals." (Social Hygiene, July, 1921.)

Syphilis a Rural Problem. Highman discusses the problem of securing the proper treatment of syphilitics in rural communities. He says: "The art of treating syphilis is something that only the seasoned can master. There is no absolute routine. Each patient presents peculiar questions which lend themselves to fine appreciation only by rich experience, but the first step is simplification of method. So far as the problem is largely a rural one, this is the most important step. . . . Medical schools giving proper training, medical centers co-operating with rural districts, the simplification of technic rather than increased complexity will render this possible. (W. J. Highman, Journal A. M. A., August 20, 1921.)

Economic Status of Forty-one Paretic Patients and Their Families. Solomon and Solomon find in a normally self-supporting group of families, nearly three-fourths had less income due to the entrance of paresis, indicating a general decline in their standard of living.

At the time of commitment between one-half and three-fourths the paretic patients had declined in working capacity, although most were still employed. Almost one-half were irregular at work or changed jobs frequently, but only a few changed to less skilled labor.

Sudden cutting off of the patients' income, however, forced nearly one-half their wives to work, and two-thirds their families to receive permanent aid. (Harry C. Solomon and Miada H. Solomon, Mental Hygiene, July, 1921.)

On the Ravages of Congenital Syphilis and Its Prevention. Dr. S. Hata, Kitasato Institute for Infectious Diseases, Tokyo, gives a critical review based on statistics drawn from the cases personally examined.

Investigated the reproductive power of married women who showed a positive Wassermann reaction and who had been married for three years or more:

- (a) Not impregnated, about 40 per cent.
- (b) Impregnated, about 60 per cent.

The fate of the fœtuses of these impregnated syphilitic mothers was:

- (c) Abortions, about 28 per cent.
- (d) Deaths within two years of birth, about 42 per cent., or about 58 per cent. of living births.
- (e) Surviving children over two years old, about 30 per cent., or about 42 per cent. of living births.

Only one-third of these surviving children will live a natural course of healthy life.

The antisyphilitic treatment in vogue, as far as we know, is not radical for congenital syphilis. Best way to decrease congenital syphilis is by treatment of pregnant mothers infected with syphilis.

MARRIED WOMEN.

- 1. Unaware of having syphilis, and who do not admit syphilis in their husbands, 21 per cent.
- 2. Unaware of having syphilis, but admit syphilis in husbands, 52 per cent.
- 3. Aware of having syphilis in both themselves and husbands, 27 per cent.

UNMARRIED WOMEN.

- 4. Unaware of having syphilis, 50 per cent.
- 5. Aware of having syphilis, 50 per cent.

Total married and unmarried women unaware of having syphillis, (1+2+4), 62 per cent.

Total married and unmarried women aware of having syphilis, (3+5), 38 per cent.

The early testing of the sero-diagnosis of syphilis in all pregnant women is most desirable, but even if this is considered impracticable, I should offer the following suggestions:

- 1. To institute a propaganda pointing out the personal and social ravages of congenital syphilis, and also the possibility of transmission of syphilis by women showing a positive Wassermann, who may be quite unaware of having syphilis.
- 2. To disseminate, more strenuously, information about congenital syphilis among midwives, and to teach them that, if there is the least apprehension of syphilis in a pregnant woman or her husband, or if a pregnant woman has previously given birth to a premature fœtus, they should advise her to undergo the blood test.
- 3. If a pregnant woman should show a positive Wassermann, she should be given antisyphilitic treatment without any loss of time, should her environment permit.
- 4. The new-born baby of a syphilitic woman should have the blood examined, and, if a positive Wassermann is found, proper antisyphilitic treatment should be given and the baby put under long-continued observation.
- 5. If either one of a married couple should have syphilis, the other's blood should also be examined. (S. Hata, *International Journal of Public Health*, July-August, 1921.)

The Sixth Annual Meeting of the British National Council for Combating Venereal Disease. "In the course of his presidential address, Lord Gorell said that during the past year branches of the National Council had been very active; there had been an increased number of attendance at treatment centers, and the public was evidently realizing the importance of continuous treatment. On the home side of the work in one county alone, lectures had been delivered to more than 30,000 people. . . . On the imperial side a substantial beginning of similar work was evident, and on the international side, whatever opinions might be held concerning the general utility of the League of Nations, there could be no doubt as to the desirability for the work of the International Health Section, at whose recent conference held in Genoa the National Council had been represented." (News Note, Lancet, London, July 2, 1921.)

Venereal Disease and Mental Deficiency (in England). "In Staffordshire, Dr. A. G. Wilkins has investigated nearly 600 cases of mental deficiency. It must not be forgotten, he urges in his annual report, 'that the number of mental defectives is likely to increase, owing to the spread of venereal disease throughout the country. This national calamity is shown by the sudden rise in infant mortality attributed to

syphilis in 1917 and the greatly increased number of notifications of gonorrheal ophthalmia in 1919 as compared with 1918. Our medical staff have made some preliminary inquiries into the relation between mental deficiency and venereal disease, and find no reason to doubt the essential accuracy of Dr. Mott's statement that there is some relationship and that as much as 8 per cent. of mental defectives give a positive Wassermann reaction'.

"We are informed that Dr Edith M. Guest has examined the records of 41,719 Staffordshire children, of age group 12-13, and found that of a group of forty-four diagnosed as syphilitic 4.5 per cent. were also mentally defective, whereas of the remainder only 0.4 per cent.

"Further evidence is given by Capt. A. F. Wright, Venereal Disease Officer to the Staffordshire County Council, who examined the blood of fifty mentally defective school children in Sedgley and Willenhall, and reported that 36 per cent. showed traces of syphilis, half of which had been diagnosed as 'word blind', while 25 per cent. were certainly syphilitic." (Editorial, Public Health Administration, Municipal Engineering and the Sanitary Record, London, July 28, 1921.)

Cases of Still-Birth (in Glasgow). In the Glasgow health report of the years 1914-1919, Dr. A. K. Chalmers, M. O. H., includes the results of an inquiry extending from 1917 to 1920 into the causes of still-birth as shown by the examination of the fœtus at the municipal laboratories. The work has been carried on under the supervision of Dr. R. M. Buchanan.

"The apparent age of the fœtuses examined varied from four months to nine months, rather more than half of the 255 examined being within a fortnight of the latter age. The proportion of cases in this series in which syphilis was undoubtedly the cause of death is certainly smaller than anticipated, for the number found was only thirteen out of 255, or approximately 5 per cent. It should be noted, however, that the dark ground method of examination for spirocheta pallida was not employed in the first forty-nine examined; had it been so the percentage would probably have been somewhat higher, for in the remainder of the series the percentage works out at 6.5. It was also observed that the presence of syphilis could be demonstrated in a relatively large number of fœtuses in the earlier miscarriages, so that had it been possible to obtain specimens at earlier dates than those included in the series the proportion might have been still further increased." (Notes and Comments, *The Medical Officer*, London, July 2, 1921.)

Stillbirth: Its Causes, Pathology and Prevention. Browne bases his report on 200 consecutive cases of still-birth and neo-natal death oc-

curring in the Edinburgh Royal Maternity Hospital. There were altogether thirty-five cases of syphilis. (Frances J. Brown, British Medical Journal, July 30, 1921.)

Results of Census of Persons Affected with Venereal Disease (in Germany). A preliminary official report has been published of the results of the census of persons suffering with venereal disease, which was taken in Germany during the period from November 15 to December 14, 1919. During this period 136,000 civilians and Army men were under treatment for venereal disease or its sequels. In other words, there were 22 venereal patients to 10,000 population. In many large cities the average rate of 0.22 per cent. was exceeded: Berlin, 0.76; Hamburg, 0.67, and Lubeck 0.49 per cent. However, since in the large cities there are proportionately more unmarried men from fifteen to thirty years of age (the dangerous period) than elsewhere, it is not justifiable to draw from these figures the definite conclusion that there is a greater spread of the diseases in the cities. The figures for the several states of Germany are not essentially different.

A comparison of statistics recently obtained with those based on the census of 1913 does not show that venereal diseases in Germany have materially increased. The incidence is most frequent in men and women in the 20-25 age group. The second most frequent incidence occurs in both sexes in the 25-30 age group, but after this a differentiation is noticeable, since the third most frequent incidence in men is during the period from thirty to forty; in women from fifteen to twenty. Of the men the unmarried group is most affected; then come the divorced, next the married group, while the widowers come last. With the women the relationship is different: The divorced are most affected, then come the unmarried, next the married, and widows come last. (Berlin Correspondent, Journal A. M. A., August 27, 1921.)

Registration of Syphilitics (in Denmark). In Denmark a system of registration has existed for about half a year. The Wassermann reaction is carried out only in one institute and under state control. The machinery for the Wassermann reaction being centralized, it was comparatively easy to evolve a system of registration centering about this reaction. The Wassermann forms have been worded so as to serve the double purpose of serological report and registration. Notification is thus almost automatic; it is confidential, as identification data supply the place of names.

In practice it has been found that syphilologists are apt not to make use of the test the first few years after infection. To overcome this difficulty they have been supplied with special registration forms. Although registration has existed only half a year, about 10,000 persons have already been entered on the Serum Institute's registers. (O. Jersild Ugeskrift for Laeger, June 2, 1921; Control of Venereal Diseases,

Lancet, London, July 9, 1921.)

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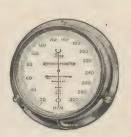
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—See article by Dr. Henry J. John, Cleveland, in "The Journal" A. M. A., Jan. 14, 1922.

Descriptive Literature on Request

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Note.

PROGRAM OF STATE MEETING.

Monday, June 26, 1922.

8.00 P. M.

Meeting of the House of Delegates.

Tuesday, June 27, 1922.

9.00 A. M.

Call to Order.

Invocation.

Introduction of Visiting Delegates.

1. "Elements Confronting the Abdominal Surgeon,"

Walter H. Miner, Calais

Discussion opened by John Sturgis, Auburn.

2. "Recent Developments in Blood Chemistry,"

Herbert E. Thompson, Bangor

Discussion opened by Mortimer Warren, Portland.

3. "Demography,"

Clarence F. Kendall, Augusta

4. "Some Observations on Infant Feeding as Seen in the Boston Floating Hospital in 1921," Charles N. Stanhope, Dover

2.00 P. M.

- 5. President's Address.
- 6. "Colles' Fracture," Charles C. Morrison, Jr., Bar Harbor
- 7. "General Practice; A Specialty and Opportunity,"

Raymond V. N. Bliss, Bluehill

Oration in Medicine.

8. "Diabetes,"

Elliott P. Joslin, Boston, Mass.

7.00 P. M.

Annual Banquet.

"Medical Cults," Channing Frothingham, Boston, Mass.

"Public Health Nurse,"

Miss Edith Soule, Portland



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WEDNESDAY, JUNE 28, 1922.

9.00 A. M.

1. Subject to be announced, Willard C. Webber, Portland

2. "Shepard Towner Bill," James A. Spalding, Portland

3. "Hydrotherapy," William W. Bolster, Lewistone

4. "Mental Therapy," Lester P. Gerrish, Lisbon Falls

2.00 P. M.

1. "The Cancer Control Problem,"

Edward H. Risley, Waterville

2. "Anesthesia," James T. Gwathmey, New York City

The Management of an Infant's Diet

Constipation

Protein indigestion or the failure to take care of the casein of cow's milk may result in delayed bowel movements.

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THE JOURNAL

OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association.

All papers, case reports, etc., should be typewritten when possible.

Proof-sheets will be sent to the author when requested.

Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

VOL. XII.

JUNE, 1922.

No. 11

COMMITTEE REPORTS TO BE PRESENTED AT THE MEETING OF THE HOUSE OF DELE-GATES, JUNE 26.

COUNCIL REPORTS.

FIRST DISTRICT.

PORTLAND, ME., May 3, 1922.

SEC. B. L. BRYANT,

MAINE MEDICAL ASSOCIATION.

My dear Doctor:—I have to present the following report as Councilor of the First District of Maine.

I attended the annual meeting of the York County Medical Association, together with the President of the State Association, at City Hall, Biddeford, Jan. 25, 1922. It was a good county representation, and a progressive spirit was manifested. Your Councilor presented the matters of medical insurance and the varieties of public nursing for general consideration. This county association increased its membership in 1921 by five admissions. An interesting review of ten years' secretarial work was presented by Dr. A. L. Jones, of Old Orchard.

I have attended every meeting of the Cumberland County Association during the past year. We have been very successful in having speakers of national reputation. There has been great interest and the full attendance has been constant. The present membership is 199. A very energetic campaign was conducted during Cancer Week in 1921 by President Marshall. A committee on public nursing was appointed to review and report on the extension of public and industrial nursing.

C. B. Sylvester, Per R. B. S.

SECOND DISTRICT.

LEWISTON, ME., April 24, 1922.

Dr. B. L. BRYANT, Bangor, Me.

Dear Doctor:—Your Councilor from the Second District has the honor to submit the following report.

The Androscoggin County Medical Society has held seven meetings in 1921 and five in 1922, with an average attendance of twenty in 1921, and twenty-eight in 1922. Our reason for the increase in attendance was due to the fact that we had a good man in his subject, from out of town give us a paper always made up of present day material and helpful.

We have sixty-seven members, a loss of six. Two died, two moved away, and two were discharged because of unpaid dues for three years.

Your Councilor has made several trips away in the interests of the state and county societies—to Bangor, Portland and Hartford. Also I visited last November Franklin society at Farmington and found a live society there. I was unable to visit Oxford County on the date given me.

All things point to a flourishing and harmonious condition in this district.

Yours truly,

E. I. CALL.

THIRD DISTRICT.

BATH, ME., April 21, 1922.

B. L. BRYANT, M. D., Bangor, Maine.

My Dear Doctor Bryant:—In reporting as Councilor for the Third District, which comprises the county associations of Sagadahoc and Knox, I will report in two sections.

First: The Sagadahoc County Association has had its usual number of meetings and remains in a healthy condition. We have a plan under consideration whereby we hope to have meetings every second month, at which the medical men of Brunswick will join us, thereby increasing the interest and numbers, the Brunswick men, of course, still retaining their membership in the Cumberland County Association and uniting with us socially.

The Knox County Association I found in a very healthy condition, their regular meetings being in January, March, May, July, September and November. In addition to these bi-monthly gatherings they have special meetings during the summer, at which prominent medical men, who happen to be summering in that locality, furnish excellent and instructive papers.

A copy of their program for the year is hereby inclosed. Very truly yours.

W. E. KERSHNER.

FOURTH DISTRICT.

WINTHROP, ME., May 6, 1922.

BERTRAM L. BRYANT, M. D., Bangor, Maine.

Dear Dr. Bryant:—In submitting to you my report as Councilor for the Fourth District will say that circumstances prevented me from visiting either the Waldo or Somerset societies this past year, yet I know that all the societies of the fourth district are active. Kennebec and Waldo have both increased their membership, with a number of men yet in each county to be enrolled. Somerset leads, with nearly if not all the physicians in the county enrolled as members of its society.

Respectfully submitted,

F. H. BADGER, Councilor for the Fourth District.

FIFTH DISTRICT.

Ellsworth, Me., June 4, 1922.

Dear Dr. Bryant:—Owing to its great extent of territory, the Fifth District, to make the necessarily long mileage most easily covered, holds a spring, summer and autumn meeting on the second Thursday in May, August and October. This year, because of the lamented death of Dr. Mason, of Calais, an ex-President of the Maine Medical Association, the May meeting was postponed to June 1st, and this meeting I attended.

The clinical material presented was practical and of general interest, the report of cases interesting and very up-to-date, the membership active, with a strong percentage of younger men, and a most successful meeting eventuated, one which I, individually, thoroughly enjoyed. If this is a sample of its regular routine I most sincerely con-

gratulate the society upon its practical, instructive, progressive program, not to mention its genial hospitality and camaraderie to its Councilor Lewis Hodgkins.

SIXTH DISTRICT.

To the officers and members of the Maine Medical Association:

Your Councilor for the Sixth District can report a good attendance and a feeling of good fellowship at the meetings of the component societies under his jurisdiction. As required by the constitution, I have attended one meeting each of the Aroostook and Piscataquis Societies, and all but one of the eight meetings held by the Penobscot Society. In all the counties there are but few practitioners who are not members, and they probably will become members if the interest that is now manifest continues. It is up to the officers of the compound body to see that this interest does not fall off, by being ready to aid each component society in every way possible.

Respectfully submitted,

CHARLES H. BURGESS.

REPORT OF DELEGATE TO A. M. A.

Your delegate wishes to report the more important business approved by the House of Delegates of special interest to our Association.

PERIODIC MEDICAL EXAMINATIONS.

To meet the popular demand for periodic health examinations and to keep this work in the hands of local physicians, the following resolutions were approved.

Whereas, The need and value of periodic medical examination of persons supposedly in health are increasingly appreciated by the public, it is recommended by the Council on Health and Public Instruction that the House of Delegates authorize the Council to prepare suitable forms for such examinations and to publish them in *The Journal of the American Medical Association;* and the county medical societies be encouraged to make public declaration that their members are prepared and ready to conduct such examinations, it being understood that the indigent only shall be examined free of charge, and that all others are expected to pay for such examinations.

CENTRAL BUREAU FOR CONSIDERATION OF LEGISLATION.

The committee recognizes in the several reports of officers, and in the report of the Council on Health and Public Instruction, a consensus of opinion that a certain bureau should be established for the consideration of all legislative matters pertaining to medicine or the practice of medicine, and of the public health, relieving the Council on Health and Public Instruction of these duties, which must be carried out in view of the extension of the functions of the Council in the matter of public education, and it is recommended:

1. That the trustees be memorialized to establish a bureau of this character, under whatever name, with such whole-time assistance as may be necessary, the duties of which shall pertain to legislative matters and medicolegal problems in which the whole medical profession may be interested, and which shall be to (a) co-ordinate the activities of the several constituent state associations, (b) ascertain and crystallize the opinions of the medical profession and the said constituent state associations, and (c) represent the American Medical Association.

In this connection, your committee desires to point to the desirability of the national organization reflecting the will of the great bulk of the medical profession, and that the bureau contemplated and these recommendations should act in matters of general policy, following instructions of the House of Delegates, or in emergencies following expressions of opinion from the proper authorities of the several constituent state associations.

RESOLUTIONS ON THE VOLSTEAD ACT.

Whereas, The medical profession has been subjected to criticism and unfavorable comment because of present conditions associated with the enforcement of the Volstead law, and

Whereas, The results of a referendum conducted by *The Journal* of the American Medical Association, covering 54,000 physicians, indicates that 51 per cent. of physicians consider whiskey necessary in the practice of medicine, and

Whereas, The dosage, method, frequency and duration of administration of this drug in any given case is a problem of scientific) therapeutics and is not to be determined by legal or arbitrary dictum, and

Whereas, The experience of physicians, as reported in *The Journal*, indicates that the present method of control, limitation of quantity and frequency of administration, licensure and supply of a satisfactory product constitutes a serious interference with the practice of medicine by those physicians who are convinced of the value of alcohol in medical practice, therefore be it

Resolved, That the House of Delegates of the American Medical Association, in convention assembled, representing a membership of

over 89,000 physicians, appeals to the Secretary of the Treasury and to the Congress of the United States for relief from the present unsatisfactory conditions, and recommends that provisions be made for supplying bonded whiskey, For Medical Use Only, at a fixed retail price to be established by the government.

RED CROSS.

We approve of the recommendation of the Board of Trustees relative to the public health activities of the American Red Cross, and their advice that the House of Delegates take appropriate action to convince those in authority that the public health activities of this organization are no longer necessary, and if continued are likely to promote community irresponsibility and helplessness in regard to its own welfare.

Your committee further strongly recommends that the Board of Trustees take such action as will make this recommendation effective at the earliest possible moment.

MEDICAL EDUCATION.

The Reference Committee on Medical Education heartily commends the comprehensive and thorough going character of the report of the Council on Medical Education and Hospitals, and is in full accord with practically all of it.

With regard to the question as to whether more medical schools are needed, your committee believes that all existing medical schools of high grade should be encouraged to enlarge their facilities so as to care for larger numbers of medical students, not merely by increasing the number and size of buildings and by adding to physical equipment, but also by the addition of teachers in sufficient numbers so that instruction could be furnished to the student body in small groups and that high standards may be maintained.

Your committee approves the suggestion that some of the smaller medical schools situated in large centers of population, and which can be brought up to higher standards, should be given financial aid as well as the larger schools.

Your committee further believes that those schools with a large population tributary to them, which have been obliged to limit their teaching to two preclinical years, should be enabled to establish the full four years of undergraduate instruction, wherever desirous to do so.

Your committee favors the establishment of new medical schools in a few states which are large enough to warrant it. Funds would be wisely expended in aiding such communities, if needed, to finance new medical schools. It is further believed that the plan of some of the great foundations to require full-time clinical professorships is not wise and does not receive the support of the general profession. Your committee doubts the wisdom of making the adoption of such a plan a condition of endowment.

The tendency toward premature or over-rapid specialization is deplored. The practice of entering a special field without the proper preliminary general and special training should be checked. It is urged that medical school so revise their curriculums as to provide a thorough training for the general practice of medicine, leaving courses in the specialties for the graduate medical school.

As a means to correct, in part, the faulty distribution of physicians, as between urban and rural districts, your committee subscribes to the plan of the Council for the establishment of hospitals in all communities having sufficient population in the surrounding territory to support them, these institutions to be under the direct control of the medical profession. It, furthermore, regards the improvement of public highways as an additional aid in providing physicians for many districts which at present do not have them.

Your committee agrees with the views of the Council that the curriculums of medical schools should be reorganized so that the study of anatomy, pathology and the other fundamental sciences may be illustrative of clinical medicine and surgery, instead of treating those sciences as entirely separate from the latter. The committee believes, as does the Council, that the study of clinical cases should begin with the first year of medical training and be carried on concomitantly with the study of the fundamental sciences, so that each group will illustrate the other.

MEDICAL ETHICS.

To cover group medicine, Article I, Chapter II, Section 4, of the Principles of Medical Ethics was amended to read as follows:

"Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communications, is unprofessional. That does not prohibit ethical institutions from a legitimate advertisement of location, physicial surroundings and special class—if any—of patients accommodated. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-

laudations defy the traditions and lower the one of any profession, and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and specially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The publication or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not per se improper. As implied, it is tupprofessional to disregard local customs and offend recognized ideals in publishing or circulating such cards.

"It is unprofessional to promote radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any methods to gain the attention of the public for the purpose of obtaining patients."

Public Health Journal.

Whereas, There exists an acute need of a lay or public health journal authoritative in character—a connecting link between the profession and the public, dealing with preventive medicine, hygiene, sanitation and communicable diseases, in brief, to enlighten the public as to what scientific medicine is doing, also its efforts to protect the public against quacks, charlatans and ill-advised medical laws; therefore, be it

Resolved, That the Board of Trustees be urged to take immediate steps to develop an efficient plan of lay publicity.

The Board of Trustees expect to be able to publish such a journal before the end of the year.

STATE MEDICINE DEFINED.

The American Medical Association hereby declares its opposition to all forms of "state medicine," because of the ultimate harm that would come thereby to the public weal through such form of medical practice.

"State Medicine" is hereby defined for the purpose of this resolution to be any form of medical treatment, provided, conducted, controlled or subsidized by the federal or any state government, or municipality, excepting such service as is provided by the army, navy or Public Health Service, and that which is necessary for the control of communicable diseases, the treatment of mental disease, the treatment of the indigent sick, and such other services as may be approved by and administered under the direction of or by a local county medical society, and are not disapproved by the state medical society of which it is a component part.

RETIREMENT DISABLED RESERVE OFFICERS.

Whereas, The disabled emergency officers of the army are not receiving the same treatment as the other five classes of disabled officers who served during the World War, in that they are denied the privileges of retirement for physical disability, as allowed all other disabled officers, regular and emergency alike; and

Whereas, It is obviously unjust and discriminatory to deny one class of disabled officers the rights and privileges accorded all other classes; and

Whereas, There is pending in Congress now legislation to correct this discrimination; therefore, be it

Resolved, That the House of Delegates of the American Medical Association be requested to urge upon the House of Representatives the passage of the Bursum bill at the earliest possible date, to the end that the disabled emergency officers may receive the treatment to which they are entitled.

On the whole, the meeting of the House of Delegates was very harmonious, most of the difficulties being settled satisfactorily in committee hearings.

The Trustees recognize the necessity of keeping in close touch with the different state organizations. They have created the office of Traveling Secretary and have appointed Dr. Olin West, of Tennessee, to take charge. Dr. West will be present at our annual meeting this year. The next meeting will be held in San Francisco.

BERTRAM L. BRYANT, Delegate.

SECRETARY'S REPORT.

At this date it will be impossible for me to make a full report, as all the county societies have not as yet been heard from. A final analysis, together with the report of the treasury, will be submitted to the House of Delegates.

It has been a year of unusual activity in the affairs of the Association. We have been working along two lines: first, to increase the value of the Association to the individual members; second, to enter more actively into public relations, especially as regards public health work. In both activities we have met with considerable success.

SECRETARIES' MEETINGS.

We have held two meetings this year, one in Bangor and the other in Portland. It has seemed best to include in the invitations all the officers, Councilors and chairmen of the important committees. In this way we get together twice a year the active working body of the Association. Both of these meetings were well attended, and important matters vital to the Association were freely discussed and referred back to the county societies through the Secretaries. Every county society should pay the traveling expenses of its Secretary to these meetings. The best man should be selected for this office and be kept there for at least five years. The life and prosperity of the society depends more upon the Secretary than any other officer. Get the right man and keep him on the job. If necessary, pay him for his services. The following rules for the Public Health Nurse as given by Miss Soule, the Director of Public Health Nursing of the State Board of Health, were approved at this meeting.

First, she must call upon every physician in her territory, including the local and district health officers, explaining her work and assuring them as well as other members of her community, that she does not intend at any time to take the place of the physician, but to carry on any bedside, or educational work along lines approved by the physicians;

That she does not diagnose, neither does she give treatments without orders for same from the family physician;

That she does not recommend one physician in preference to another, that if patient has no physician, and advice is asked of nurse as to whom shall be employed, that she will give the list of physicians in the town and leave the patient to make selection from list;

That she desires the physician to call upon her to assist him by giving instruction to prospective mothers in regard to the hygiene of pregnancy, and post natal care of mother and child; to assist in supervising tuberculosis patients; to endeavor to bring the defects of school children to the attention of parents and physicians; that by close co-operation she will assist the physicians in the detection and care of communicable diseases.

In short, the public health nurse should be an extra arm to the medical profession.

MEDICAL DEFENSE.

At the last meeting of the House of Delegates it was voted to appoint a committee of medical defense to take over the work of defending our members under the defense act. This act, under certain conditions, undertakes to furnish a member with free defense, but pays no indemnity if judgment is found against the physician. During the last few years these cases have been multiplying until the rates of indemnity insurance have more than doubled or have become almost

prohibitive. This committee has succeeded in obtaining for our members such insurance in a responsible company at about one-half the prevailing rate. Over four hundred have already taken advantage of this privilege.

Every member of the Association in active practice should take out this insurance. In so doing he not only protects himself, but reduces the premiums of other members. Also, it is unfair that, under the defense act, those who are protecting themselves and the Association from expense should be obliged to pay their share in addition toward defending those who are unwilling to pay for insurance or neglect to do so. If all come in, it is certain that in a very short time the company would be able to give us a very much lower rate. Up to the present time there have been twelve applications for defense. None as yet have come to trial. Three have been dropped and several of the remainder have been put over several terms of court. Few, if any, will be prosecuted.

WORKMAN'S COMPENSATION.

In the February and March Journal your Secretary called your attention to certain abuses arising from employers and accident insurance companies attempting to evade payment to physicians of their legal fees, as provided under section ten of the Workman's Compensation Act. These abuses have been most frequent in the larger hospitals, where accident cases have been admitted as ward patients, and under the rules of the hospital as such must be treated free of charge by the attending physician or surgeon. It is the opinion of your Secretary that collecting a legal fee from the employer or accident company is not charging a fee to a charity patient in the ward and does not, infringe any hospital rule governing charity patients. In this opinion both our attorney and the chairman of the Accident and Industrial Commission agree. One of the larger hospitals has already accepted this interpretation. It is now up to the staffs of other hospitals to take it up with their boards of managers.

It has been called to my attention that certain insurance companies may contest physicians' bills arising from these ward cases. If so, I trust the delegates of our Association will be willing to authorize their officers to employ our attorneys to carry through a test suit, to establish the legality of our claims.

STATE LEGISLATURE.

The State Legislature meets the first of next January. There will undoubtedly be many important matters brought before this body

in regard to the practice of the healing art and other health matters in which, as an Association, we should take an active interest. Our Legislative Committee should be selected with care, and so instructed that there will be no doubt as to the wishes and policy of the Association.

The question of separate licensing boards for the different cults will again be up for action. There should be some way in which this matter could be settled once for all. To accomplish this it may be necessary to change to some extent our methods of licensing and our examining board. There should be one fundamental standard for all who wish to practice the healing art. While the giving of drugs has an important place in therapeutic measures, beside the necessary educational requirement, the ability to diagnose disease and the scientific knowledge required in preventive medicine and hygienic methods of treatment, they are but a small part of the armentum of the scientific physician. The giving of drugs should no longer be made the dividing line between physicians and others practicing the healing art. There should be a fundamental educational standard high enough to protect the public—at least the equivalent of a high school education, a four years' course in an accepted school teaching the art of healing should be required. All graduates should come before one board of educators, to make it impartial, one member to be appointed from the faculty of each of the four colleges of the state, with the Superintendent of Schools added. This board should examine each candidate in fundamentals, physiology, anatomy, pathology, chemistry, diagnosis, hygiene, public health, and such other branches as seems necessary. Then let each state association of those professing to practice the healing art nominate a board of three to be confirmed by the governor, who shall furnish the examinations for such candidates according to the system of therapeutics they wish to practice. This method of examination, it would seem to me, would be fair to all concerned, and would accomplish the object of protecting the public by making all wishing to practice the healing art conform to one fundamental standard high enough to weed out the charlatan and quack.

POST-MORTEM EXAMINATIONS.

Every physician recognizes the importance and scientific value of post-mortem examinations, especially in obscure cases and sudden death. The present laws governing this work are so vague, as regards the legal methods of procedure, that it makes it almost impossible to obtain such an examination without making the physician liable to suit by some disgruntled relative. A statute covering this matter should

be drawn up and presented to this legislature, enabling institutions, especially, more easily to carry out such scientific investigations as they see fit, under proper restrictions, without fear of involving themselves in legal action.

PUBLIC HEALTH.

At the last annual meeting you appointed a Committee of Public Relations. This committee is made up of seven members, all prominent in health work. Combining, as it does, all heads of departments, it has been very easy to establish a co-operative plan for constructive work.

This committee was made the advisory body of the Public Health Association, and in that capacity has active supervision over all the medical activities of that Association. It has approved the three-year state health program, which has attracted so much favorable attention all over the country. It is the first successful attempt at state health co-operation between the State Board, the Public Health and State Medical Associations. This plan bids fair to be adopted in several other states in the near future. In starting new work in any county it has been assured that there shall be a committee of physicians appointed by the county society to actively assist or to act in an advisory capacity. Every opportunity will be given to the physicians for active leadership in health work in their community. This demand for community and individual health is coming from the people. It is everywhere in the air. For the first time in any state the physicians are asked to take the lead in this movement. The demand and the impetus has become so strong that it is bound to go on. We can now take our proper place at the steering wheel or take their dust in a flivver a few years later. It is a movement in which our profession should lead.

The last Congress passed the so-called Maternity and Child Welfare Bill. This was generally opposed by the medical profession. But whatever is our opinion, the bill is now a law and has been adopted by about forty states and rejected by two, New York and Massachusetts. While most of us do not approve of federal aid or interference in state health work, this act has become a law, and we are taxed our proportionate share for funds to carry out its provisions in those states that have adopted it. The one question now is, shall this state submit a plan for disbursement which, if accepted, will give us ten thousand for this work among mothers and children, or shall we reject it, as have the last two states. This bill was published in full in the April JOURNAL and deserves your careful reading, as it will doubtless come up for discussion in the House of Delegates.

As an example of health co-operation we joined forces with the

Public Health Association in the campaign against cancer. Dr. Risley was the chairman of the two committees. You will see in the report of that committee the amount of work accomplished and how well the campaign was carried out through the state.

In the state health plan provision was made for two combined medical and public health clinics. The first was held in Bangor in March. Eminent physicians and surgeons and public health workers enthusiastically gave their time for two days of intensive work in clinics and lectures. The social side was not forgotten. One hundred and fifty physicians and health workers had opportunity to become acquainted at the closing banquet. The next clinic will be held in Lewiston sometime in August.

BERTRAM L. BRYANT, Secretary.

	MEMBERS BY COUNTIES.		
		1922.	1921.
Androscoggin,		64	65
Aroostook,		47	44
Cumberland,		197	198
Franklin,		15	16
Hancock,		24	28
Kennebec,		66	43
Knox,		27	25
Oxford,		35	32
Penobscot,		88	89
Piscataquis,		16	18
Sagadahoc,		17	15
Somerset,		28	26
Waldo,		15	12
Washington,		26	33
York,		55	63
Direct,		10	10
		730	717

TREASURER'S REPORT.

For the year ending June 1st, 1922.

Cash on hand June 1st, 1921,	\$6,674.33
Cash received from dues, 1922,	3,072.00
Interest on deposits,	201.85
Total receipts,	\$9,948.18

Bills	paid	

1	
Officers' salaries and expenses,	\$ 664.13
Printing,	111.76
Annual meeting,	339.12
Appropriations,	1,025.00
Defense,	782.72
Cancer Committee,	45.10
Miscellaneous,	92.68
tal expenditures	\$3,060.5

Total expenditures,

\$3,060.53

Cash on deposit,

\$6,887.65

BERTRAM L. BRYANT,

Treasurer.

REPORT OF VISITING COMMITTEE STATE INSANE HOSPITALS.

The Bangor and Augusta State Hospitals and the School for Feeble Minded at Pownal were visited by your committee.

We feel that nearly everyone visiting our state institutions will be favorably impressed. The wards are cheerful, and the patients appear well cared for. Everything is generally quiet, and one hears little of the noisiness and confusion which are so frequently associated with insane hospitals in the minds of the laity.

One of the chief concerns of our hospital superintendents has always been the procural of legislative appropriations for the construction of new buildings, in order that sufficient room for the ever-increasing hospital population may be provided and overcrowding thus avoided. We feel that these endeavors should have the endorsement of the Maine Medical Association. At Bangor a new wing for male patients is needed. At Augusta a new building might well take the form of a separate psychopathic hospital for the study and treatment of recent admissions.

Naturally the chief interest of the medical profession in regard to mental diseases is treatment. To a psychopathic hospital would undoubtedly be attached a full-time internist, who would work in association with the psychiatrists. Surgical advice could be obtained when indicated. In this way each case could be investigated from various viewpoints, and the best opportunity would be afforded for the discovery and removal of underlying physical causes. Of possible physical factors in the causation of mental disease most interest is being shown at the present time in toxemia from intestinal malfunction, in

focal infection, and in endocrine unbalance. Psychopathic hospitals for the intensive study and treatment of mental diseases from all possible angles have already been instituted in many states and Maine should not lag behind.

A misconception held by many of the laity, and perhaps by some physicians, is that an individual once committed to an insane hospital is practically doomed and his chances of recovery slight. That this conception is erroneous is shown by the figures for recovery and improvement. For example, in 1920, out of 611 admissions to Maine insane hospitals, 16% were discharged as recovered and 25% as improved. In other words, over 40% of patients committed improved sufficiently to be returned to their homes. We would urge physicians to visit the hospitals, talk with the men in charge of the work and familiarize themselves with conditions as they exist.

The problem of the feeble minded is largely one of segregation, in order that propagation among this class may be prevented and their number progressively diminished in the future. It is estimated that in Maine there are about 1,200 feeble minded who should be in institutions. At the present time Pownal can accommodate about 300, and there is a waiting list of 300 more for whom application for admission has been made, but who cannot be taken because of insufficient space. It is planned to increase the capacity of this institution to accommodate the estimated 1,200 in need of segregation as soon as the necessary appropriations can be obtained. A dormitory for 150 men and a dining hall seating 1,200 are already under construction. At the Pownal institution everything possible is done to develop such mental capacity as exists among the inmates. Entertainments and athletic games are provided, while daily instruction is given in elementary school work and in the various industries. Many mentally deficient individuals are capable of excellent work under supervision, so that a certain number can be eventually discharged to the community as self-supporting.

Respectfully submitted,

HENRY M. SWIFT, WARREN B. SANBORN.

REPORT OF THE CANCER COMMITTEE OF THE MAINE MEDICAL ASSOCIATION, 1921-1922.

Your committee wishes to make the following brief report of its activities for the year.

All cancer work of an educational nature has been under the joint supervision of your committee and that of the Maine Public Health Association, and the enthusiastic co-operation of Mr. W. B. Thurber,

of the latter, has made possible much activity that would otherwise have been impossible.

In order that the facts given out to as large numbers of the laity as possible might be uniform in character and express the consensus of opinion of many workers along this line, and not the more limited opinion of any one man, a standard lecture was prepared and sent to every physician in the state for delivery before various groups of lay audiences. In this way the work was standardized and greater numbers of people reached in the rural districts than in any other way. This solved the problem of furnishing an adequate speaker in scattered districts and small towns and villages.

The campaign work has been systematized and simplified, and at the same time made much more effective, by the appointment in each county of a county chairman, who had charge of the carrying out of the campaign in the best way suited to his own county. He, in turn, appointed a county committee of representative physicians or citizens. In this way, also, much more uniform co-operation was obtained from physicians throughout the whole state.

During the National Cancer Week many thousands of leaflets of cancer literature, carefully prepared by the American Society for Control of Cancer, were distributed in all meetings on this subject, and in Franklin County through the rural free delivery. In Portland and Lewiston, some of these were reprinted in French for the benefit of the French population.

A great deal of gratifying enthusiasm has been shown by the physicians of the state, who have given hearty co-operation to your committee's efforts to spread the hopeful facts about malignant disease by lecture and by literature throughout the state.

We have also had the hearty co-operation of the heads of the Federation of Women's Clubs, the State Grange, State Federation of Labor, the ministry, and most educational institutions.

H. E. THOMPSON,
BERTRAM MANTER,
EDW. H. RISLEY,
Chairman.

REPORT OF COMMITTEE ON PUBLIC RELATIONS.

The Committee on Public Relations has been, through various members, actively engaged in investigating several topics of vital concern to the physicians of the state.

A preliminary session was held at the meeting of the Council, Secretaries and Committees in Bangor in the fall, at which the work of

the year was outlined. At the second meeting in the spring a final report was agreed upon.

It was voted to endorse the work of Dr. B. L. Bryant, Secretary, affording a legal remedy for the abuse of medical charity in industrial accident cases. The publication of this correspondence in the JOURNAL will be recalled, showing that it is illegal for insurance companies to withhold payments to physicians where the patients have been treated in the wards of hospitals, on the pretext that it is against the regulations of the hospitals to permit attending physicians to collect fees for ward patients.

The committee voted, after careful consideration, to accept the principles outlined by Miss Edith Soule, Director of Nurses for the State Department of Health, to govern the relations between physicians and public health nurses. Among other recommendations, these include that the public health nurse does not diagnose, nor does she give treatment without orders from the family physician, and that she does not recommend one physician in preference to another.

With one dissenting vote the committee took the position that the money appropriated to the state under the so-called Shepard-Towner Bill for the use of the Child Hygiene Department of the State Department of Health should be accepted in so far as it did not requise expense on the part of the state. During the course of a very lively discussion the committee made itself perfectly clear that in so doing it expressed neither approval nor disapproval of the Act. It did, however, feel that in so far as the funds were obtainable without cost to the state are without interference in the administration of the State Health Department by the federal authorities, there was no object on to following the example of the thirty-seven other states that had accepted the appropriation.

The committee has now in press a bulletin of thirty-three towns without a resident physician. This includes communities ranging from 500 to 1,200 inhabitants, some of them so close together that 1,500 or 2,000 people have no regular medical facilities. Vacancies exist in an important succession of towns in the Sheepscot Valley, several attractive locations on the coast, a number of communities in the tourist section of the western part of the state, and others more widely scattered. When issued, this bulletin will be sent to every medical school in the country for the attention of the graduating class. Notice of the action of the committee has been referred to in the press, and communications have already been received from a number of physicians outside the state inquiring about locations. The committee recognizes that in rare instances its activity might be regarded by the practitioners in neigh-

boring villages as developing undesirable competition. The distances, however, are so great that this would seldom occur even if the plan succeeds beyond our wildest hopes. On the other hand, unless some such attempt is made to supply the needs of these communities through the agency of the Medical Association, there is grave danger that they will be filled by the establishment of county clinics, such as have been tried in other states, or by some other more or less thinly disguised form of state medicine.

S. Judd Beach, M. D., Chairman.

T. E. HARDY, M. D.

R. D. SMALL, M. D.,

E. D. MERRILL, M. D.,

F. Y. GILBERT, M. D.,

C. F. KENDALL, M. D.,

B. L. BRYANT, M. D.

REPORT FROM STATE COMMITTEE ON HOSPITAL STANDARDIZATION.

We, the undersigned committee, appointed by your honorable body to make a survey of all hospitals in the state, and report to you our findings with recommendations, wish to report as follows:

Nearly forty hospitals in all have been visited, either individually or collectively, by your committee. In general, we can see marked improvement in hospital management over former years. We can see greater evidences of progress in the manner and method of keeping hospital records and file lists than in any other way. Where formerly X-ray, urine, blood and other reports were either omitted or kept in different places for storage in the hospital, now they are either pinned together or kept in one large envelope or folder, and filed away in good and systematic order. In some instances we find a complete report of patients, including the X-ray film, placed in a large folder and put away for permanent record. We believe this to be a good idea.

The hardest proposition seems to be to get our hospital doctors to have staff meetings every month or semi-monthly for review work. We believe by such complete reviews, where the medical man, the surgical man and the specialist get together and talk over their work, that more definite benefits will accrue, not only to the physicians in their work, but also to their patients, than by any other method. The great ultima Thule to be arrived at when we dismiss a patient unimproved or deceased is, was any unnecessary treatment, either medically or surgically, given, or were there any omissions on anybody's part which led up to this conclusion? Did the end justify the means? Staff meetings,

if properly held, should keep us morally clean of all of these points, We believe it very difficult for the smaller hospitals, especially the private hospitals, to get such co-operation that these staff meetings can be held to the best advantage, but we believe reviews of the work done will be very beneficial to the hospital management, even if nobody else may be present but the surgical nurse, the superintendent, anesthetist, assistants at operation and the surgeon in charge.

Economic conditions seem to be playing an important part in the minds of the superintendents as to various inefficiencies. We hear them say that we cannot get and have what we would like because we haven't any money. We grant this is true in many instances, but we are convinced that many of our hospitals are wasting many opportunities that might overcome their grievances. There are not half as many people applying to the hospitals deserving free treatment as these patients would have you believe. It is the duty of the hospital officers to look more carefully into the financial status of patients than they are doing. With the liberality that is shown in our various cities and towns toward assisting their poor people, with the state and national laws as we have them, with the various insurances and organized means at our command, we believe that a higher percentage of collections is easily obtainable than is found at a great many of our institutions. Why should we find such differences in collection records in the various hospitals if it were not due to inefficiency of service on somebody's part. It is not opportune for us to discuss the various wastes in our different institutions. In a number of these institutions it would seem as though the extra unnecessary waste is being compensated for by the extra legislative grants, and we believe this may be wholly unknown to the State Budget Committee.

If we had any further particular criticism to make it would be this, that in the majority of instances we would not question so much that improper or inefficient work was being done in the various hospitals due to lack of necessary hospital outfit, but rather to the improper use of what they have already.

In consideration of the fact that only one hospital in our state, namely, the Eastern Maine General Hospital, Bangor, has fully complied with the Hospital Standardization requirements for Class "A" position, we would suggest that all influence from all sources be brought to bear upon such hospitals as are found in Portland, Lewiston, Waterville, and, in fact, all the larger centers, that they, if necessary, make new appointments of officers or trustees in control, to help raise their standard. We, as a committee, believe that especially Portland should be criticised, as their hospitals are not up to a standard of equality with

the other public institutions of their city. There is no reason, with up-to-date, influential, young, aggressive men in control, why Portland should not have at least two Class "A" hospitals. We must expect under the circumstances that concerted action be taken by the laity of Portland to better their hospitals, as at present they are too far below the standard.

We hope before another year's report comes out to have at least ten Class "A" hospitals in the State of Maine, and the only thing that we can recommend to accomplish that end is that every physician connected with an institution GET BUSY with his trustees and the officers in charge to put their particular hospital in the Class "A" position, a standing which the public will very shortly demand.

> Dr. Walter N. Miner, Dr. H. L. Bartlett, Dr. F. W. Mitchell, Committee.

JOURNAL REPORT.

The past few years of JOURNAL work has been very difficult, owing to the recent war and its aftermath, which has made general business conditions uncertain. There has been a steady curtailment in advertising, which has used up our reserve and may show a slight deficit.

During the past year there has been an unusual amount of material for publication, but the cost of publishing, which reached the maximum about one year ago, shows no sign of growing less. Today, the cost of printing remains about 100% above normal times, and yet the cost of the Journal to the Association remains at about the same as the costs of the transacting in 1909, viz., \$500.00. This is due mainly to the fact that the editorial staff and the officers of the Association give freely of their time, and their only compensation is the belief that the ultimate result will benefit in some way the medical profession.

Two facts should be borne in mind, viz., three-fourths of the cost of the Journal is borne by the advertisers, and secondly, that the Journal restricts its advertising to those who have submitted their products to the Council on Pharmacy and Chemistry and received approval.

This means that no article appearing in the advertising pages is other than it claims to be, and no false claims are made for its curative value. If the members would restrict their patronage to those concerns carrying adds in our Journal they could feel absolute assurance in the article used and at the same time aid the Journal in securing advertisements for those concerns who are putting out absolutely safe products which the physicians require.

A year ago we were approached by the Boston Medical and Surgical Journal with a proposed merger plan, with the idea of securing a strong New England or Northeastern medical journal, and a committee was appointed to take the matter under advisement. At that time the Boston Medical and Surgical Journal had about seven years to run to complete its one hundred years before it could change its name, whereas the feeling in the varying states in question was that a journal representing the New England States should not bear the name of any specific locality. The writer still believes in a strong New England journal, representative of all states, and looks forward to the time when it will become a certainty. In closing, I can only urge upon the members the importance of patronizing those concerns carrying advertisements in your Journal for two reasons: First, they must be just what their formula states, both as to ingredients and curative value; second, co-operation with our advertisers means a larger income and a bigger Journal.

The accompanying report of the finances of the JOURNAL is submitted.

MAINE MEDICAL JOURNAL STATEMENT, June 30, 1921, To June 30, 1922.

RECEIPTS.

Cash on hand June 30, 1921,	\$248.74
Received for advertising and subscriptions,	\$1,636.82
Received from Maine Medical Association,	500.00
Total receipts,	\$2,136.82
	#a ao# #c
	\$2,385.56

EXPENDITURES.

Printing,	\$1,177.35
Salary,	780.00
Stamps and incidentals,	225.00
Dr. Gilbert's expenses,	72.76
Supplies,	14.36
Stamps for Maine Medical Association,	20.00
Total expenditures,	 \$2,289.47
Cash on hand June 30, 1922,	\$96.09

FRANK Y. GILBERT, Editor.

JOURNAL OF MAINE MEDICAL ASSOCIATION

Editorial Staff.

DR. JAMES A. SPALDING, Portland. DR. BERTRAM L. BRYANT, Bangor. DR. F. C. Tyson, Augusta.

DR. C. J. Hedin, Bangor.

DR. A. S. Thayer, Portland.

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DR. FRANK Y. GILBERT, MANAGING EDITOR, 148 Park St., Portland.

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THE MATERNITY WELFARE LAW.

We are glad that a paper on this important topic is to be read at our annual meeting, because renewed interest has been interjected into its study by the recently expressed opinion of the Attorney General of Massachusetts that it is unconstitutional. Leaving this for the Bench and the lawyers to decide, our attention is seriously called to a study of what appears to be another blow on the entering wedge of state medicine started by the Narcotic law. If we permit our rights to be infringed repeatedly, we shall fall ere long into the degraded condition of the profession in foreign lands.

A paper concerning this law should mention its asserted origin as a stop to woman's suffrage, followed by specious attractions to entice the states into the whirlpool of federal supervision. Some readers of the law claim that they do not see any harm in it, whilst its opponents want to know if there is any good in its provisions. They do not see how maternal mortality can be prevented or infantile care advanced by mere political investigations. They think that the attending physicians know more about their patients than the best of officials. Some say that it is dishonest for some states to steal from others, or to utilize for the benefit of their expectant mothers and newborn infants money extorted by taxation from neighboring states, as this law directs.

Such questions as these should be discussed and settled if possible. It is said, additionally, that the death rate in infants under one year of age is greater in Biddeford than in any city in the nation. If so, at whose door is the fault to be laid? It would seem better to save

these infants first, and to print statistics to be forwarded to Washington afterward.

It is said by friends of the law that there will be no house visitations and therefore no interference with our practice. If, however, there is no penalty attached to such visitations, they will soon be made, because they are indispensable to investigating studies to be sent to Washington. So, too, all laws can be amended, and when it is found that without visitations nothing is gained, amendments will make them compulsory.

Our State Board of Health is not so overburdened with work that it cannot study maternal welfare right on the spot, and fully as well as when supervised at Washington. It is a confession of our weakness and imbecility to ask outsiders to do our medical preventive work.

It is now plain from every point of view that physicians should get together and talk over this law and recommend to the state government and Legislature of 1923 a working plan for the prevention of maternal mortality and for the better care of newborn infants. As a part of such a program, every physician should study his cases of death in childbed, for example, and hand them into the Association. Let, then, those in charge of us offer a constuctive scheme by which the State Board of Health, the visiting nurses, the hospitals, and finally the entire body of physicians in the state shall get to work together and diminish maternal and infantile mortality.

Any paper which shall show a trail leading toward the discovery of some such working, constructive plan, will be welcome and is sure to be followed by a spirited and successful discussion.

J. A. S.

Necrology.

EGBERT TILTON ANDREWS,

GRAY, 1844-1922.

Dr. Andrews died rather suddenly at a hospital in Portland, January 10, 1922. Although he had long been failing in health to a moderate degree, no immediate death of this well-known physician was looked for. He lived an apparently uneventful life in the quiet old village of Gray for many years, and yet a great deal might be said concerning his medical career. Born in Deer Isle, December 28, 1844, the son of Rev. Charles Andrews, a Methodist minister, and of Margaret Hutchings, his wife, from New Brunswick, he enlisted as a hospital orderly in the Civil War of 1862, studied medicine and taught school alternately during a series of years, and after attending one course of medical lectures at Bowdoin in 1871, he was graduated at the Columbia New York Medical School in 1873. He settled in Gray when Dr. Charles Hutchinson migrated to the wider field of Portland, and practiced there the rest of his life, driving over endless long miles of difficult roads, winter and summer, for many a year.

He was a skillful country doctor, had the sense of diagnosis at his finger tips, and knew, moreover, when to call in a consultant. He took good care always, on such occasions, that the fee for the consultation was ready for the asking. He was not much given to talking, but about a day or two before his death I heard him say this much about his studies with a well-known physician of Portland:

"Well, we didn't learn much in his office. We read the medical books on any topic which happened to take our fancy. We swept the office and kept the windows clean. We listened in to the questions put to patients by the doctor. Sometimes we examined his patients, sometimes he took us out to see a case, one staying in to keep the office open until the other came back. But really that year did not amount to much, except that we paid a fee, and we learned something, anyway, and we got what we were paying for, a certificate of a year of study toward the three years' certificate called for in obtaining a diploma to practice medicine. But precious little real medicine did we learn, and yet it was the fashion of the day."

Personally, Dr. Andrews was short, stocky and steadfast in his views and in his practice, and particularly in his friendships. When he had once, as it were, adopted some younger man for a consultant, he clung steadily and sturdily to him for life.

He owned a mortar and pestle once belonging to a famous Dr. Peter Whitney, physician and medical teacher at Gray, and liked to show them to visitors.

Dr. Andrews married Miss Elizabeth Mills, a granddaughter of Governor Morrill, and their son, Dr. Anson Morrill Andrews of Gray, of today, bears as a middle name that of his mother's distinguished family.

J. A. S.

JAMES WILLIS JOHNSON MARION.

CALAIS, 1880-1921.

Dr. Marion was comparatively a stranger in the ranks of our Association, and for that reason particular pains have been taken to place at the head of this brief notice of his career and tragic death a suitable halftone.

Dr. Marion was the son of Dr. Otis Humphrey and Caroline Johnson Marion, once of Enfield, New Hampshire, and was born in that village Dec. 5, 1880, obtained his academic degree from Harvard in 1904, and his medical from the same college in 1908. He was so able as a student that he was made an interne at the Boston City Hospital, and later studied in the City Lying-in Hospital and at the Children's Hospital, from which institutions, well equipped with medical knowledge, he settled in Medford, Massachusetts, for a while. He moved from Medford to Oregon during the "boom" times, and when he became disappointed in the good times dving out, he was glad to accept a chance as assistant in the practice of a cousin in Norfolk, Virginia. There the climate disagreed with him, and when he heard of a promising chance in Calais, with open winters, cold, fresh air, and a reasonable climate, with sport, he set off at once and settled in that city in 1916. Previous to this event he had married, in 1911, Miss Jean Cartwright, a daughter of Benjamin and Agnes Cartwright, of the island of Nantucket.

He was the author of several papers of much promise, but even the titles of them have so far escaped reasonable research. He was fond of music, liked the violin, had a habit of getting others to play with him, and almost always established a small quartette or orchestra wherever he practiced.

He was passing a brief vacation in a camp of his aunt at Mascoma Lake, in Enfield, New Hampshire, in August, 1921, and on Wednesday, the 10th, he took two boys out in a boat, intending to have one of them swim ashore, whilst the other paddled the boat to land. One of the boys jumped from the boat, feared that he could not make it, and



JAMES WILLIS JOHNSON MARION.

called for help. Dr. Marion shouted to him to hold on and he would come for him to get on his shoulders, and would take him ashore. Dr. Marion jumped into the water, but sank at once. He had suffered previously from cardiac weakness of some sort, but was regarded as an expert swimmer. His body, entangled in weeds, was not recovered until some days later, as there were no guiding posts by which to locate the position of the boat when he jumped from it to his sudden death.

J. A. S.

HERBERT BARKER MASON.

CALAIS, 1855-1922.

It is interesting to recall to mind, at a time when some county members are opposing membership to homeopathic physicians, that the President of the State Association in 1918 and the subject of this sketch was also a homeopathist. It seems to the necrologist of this Associa-

tion that the election of Dr. Mason to its Presidency, and his two years' Presidency of the Washington County Medical Society previously, settled forever the standing of homeopathic practitioners as eligible to membership in every county society, precisely like all other registered physicians of good standing in the community.

It happened once upon a time that some members from Washington County were on their way to the meeting of the Maine Medical, and as they talked it suddenly occurred to one of them to remark that it was the turn for Washington County to have the Presidency. Someone asked Dr. Mason if he would like to be President, and he said that he would rather be President of the Maine Medical than to be Governor



HERBERT BARKER MASON.

of Maine. It was settled then and there that he should be the next one in order. The wires were pulled for Dr. Mason, he was elected that very year, and in the following year he presided gracefully and delivered an excellent presidential address.

Dr. Mason was born in Hampden, obtained his degree at the Boston University Medical School, and settled in Calais in 1877. He practiced there for forty-five years. Although he practiced homeopathy up to the time of his death, he really devoted the last fifteen years of his labors to X-ray hospital work, photography of surgical operations, giving of anesthetics scientifically and the uses of X-rays for cancerous growths. He loved his late specialties and rarely practiced medicine, although his

knowledge of the art and of drugs was extensive. He was also an expert in surgical apparatus, making of splints, and the application of braces for deformities of all kinds. He had a genius for mechanics.

As a citizen he held the high position of Mayor of Calais for two years and was long on the city Board of Health. He served as President of the county society two years, and had been its very efficient Secretary for twelve.

Dr. Mason was very fond of music, and for twenty years was musical chorus and Festival director, and in that position will long be missed, for he was devoted to music, and the man who is given to that cannot help being one of the rare men in the ranks of humanity.

Dr. Mason was attacked with angina pectoris on the 25th of February, 1922, whilst in his office, and despite all that could be done, he departed from the scenes of his well-spent life on Thursday, March 2, 1922, and is survived by a widow, formerly Miss Charlotte A. Smith, and three sons.

His character may be summed up briefly: that he was of greater help to the profession than to patients. He loved his later life specialties better than he loved the sick, yet when occasion served, no physician could have been more devoted to their care than was he.

J. A. S.

WILLIAM CASTEIN MASON.

BANGOR, 1852-1922.

It is a pity that we do not have more space to spare for notices of members as they leave our ranks, for some of these notices can be made as interesting as papers on topics that have been written to death. On the contrary, members die but once, and only once can their records be printed appealingly. Such is the case with our late associate, Dr. Mason, for he was an unusual personality in the world of medicine, and in taking our last farewell of him much could be said that is due to his memory.

Dr. Mason, the son of Dr. John and Caroline Rogers Mason, was born in Bangor, September 1, 1852, and educated academically and medically at Harvard. After finishing three courses of lectures, he was interne for a year at the Massachusetts General Hospital, and was graduated in 1878. He settled in Bangor, was city physician for two years, helped to found the Eastern Maine General Hospital, was early appointed on its surgical staff, and did good work in that position for

many years. He performed his last surgical operation on Tuesday, January 11, 1922, and attended that evening a medical meeting, where he spoke on "Angina Pectoris" in the discussion. Going home, he was attacked with that same disease, and died on Thursday, the 19th, in his seventieth year.

He was a Harvard man first, last, and every day of his life. He probably attended more college meetings than any other graduate of his era. His collection of Harvardiana was unique in extent and diversity.

There was a streak of humor in his make-up. After a fall on the ice he discovered that he had lost fifteen pounds in weight, but he declined an invitation to a dinner, because he feared that he could not eat enough to make up that deficit. At another time he urged some friends to dine with him "before that awful law goes into effect."

Dr. Mason was truly polite. If you wrote to him and he had no answer ready, he would tell you so at once on a post card, and promise to write soon. He believed that politeness is worth the cost of a one-cent stamp. His letters were filled with items of personal and medical history. They told you what you wanted to know. The only fault with them was that they were written on both sides of the sheet, but the writing was black and distinct and symbolized his sturdiness. He happened to attend a meeting where a distant friend was reading the paper, when he was called off suddenly. Rather than go forward and interrupt, he left for his patient. Reaching home late at night, he wrote at once explaining his departure, regretting the interruption, and the reader of the paper found that letter upon his desk almost as soon as he reached there himself.

As a practitioner he was, as he had been as a student, methodical, conservative and successful. He loved the Maine Medical until, as he complained, it fell to pieces under the dictation of the A. M. A., and of late years did not attend the meetings. He was, however, punctilious in county medical affairs. In his early life he wrote papers on the relations between physicians, with suggestions for union and advances, but later on he simply took part in the discussion of papers written by others. Few men ever listened so attentively. He did not approve of the Journal of our Association, because its influence depended upon its editorials, and few physicians in Maine had any training in telling physicians what they ought to do.

As a friend he was genuine and charming. As a man he was dignified and courteous; not of the so-called "old school," but of that undying school which has so few scholars now-a-days, of knowing the

proper thing to do. Mention should also be made of his most hospitable home, over which Mrs. Mason so long presided with charm and suavity, and also of a son who survives.

The last time that I ever saw Dr. Mason was during the reading of a paper on Dr. Simmons, of Bangor, a life-long medical friend, and nothing on this occasion pleased me more, as I glanced here and there from my manuscript, than to note amongst the audience my old friend in medicine, with his eager, yet smiling face. I felt that of all who were there I was closest of all in touch with him. Directly afterward I went to his delightful home, adorned with portraits, water colors, rugs and handsome bits of furniture, and as I looked around I felt that only amidst such surroundings could a man of true refinement live. I waited long, went out and came back again, but after a second long interval, and he not coming in, I left with regret. I was fated never to see him again. Those who knew him well will recall him long and with affectionate regret.

J. A. S.

EUGENE DAVID O'NEILL.

Biddeford, 1865-1922.

Dr. O'Neill had long been ill with chronic anæmia and nephritis, but with his sunny disposition and outlook upon life he remained almost sure to the end of his life that he was bound to get well, and would meet old friends at Old Orchard again in the summer of 1922.

He was born in Biddeford, August 6, 1864, the son of John and Joanna Kearns O'Neill, educated in the public schools and then he went to work in the Pepperell Mills, and later on in the apothecary shop of John Berry, saving his wages all the time in order to obtain a standard medical education. He attended lectures at the Bowdoin Medical School in 1891-92, and obtained his degree at the Johns Hopkins in 1893. He then settled in Biddeford for the rest of his life, although practicing largely at Old Orchard Beach in the summer seasons.

He soon obtained and held steadily a large circle of patients, and with his sunny smile and genial personality had no difficulty in making a broad path of success for himself and for his wife, who was Miss Louise Marie Callahan, a noted recitalist of Lewiston, and who survives his loss. Together they went abroad twice, Dr. O'Neill once acting as delegate to the International Medical Congress in London, and later studying in the Maternity at Dublin, with Lane in London and at St.

Germaine's in Paris. Whilst thus engaged he made abundant notes, upon which, in later days, he constructed some very clever papers on "Criminal Abortion," "Cranks and Paranoiacs," "Stasis," and a delightful account of travel abroad and in the Irish Lake Country. He was much given to obstetrics, and is said to have attended six thousand lying-in cases.

He loved the violin and played it with expressive melodiousness. He told good stories, and those who have heard some of them vow that



EUGENE DAVID O'NEILL.

his experiences in kissing the blarney stone were wonderful in the extreme and congratulated themselves on having lived to hear him tell this yarn in his own inimitable fashion amidst screams of laughter from his hearers.

Our delightful comrade in medicine departed from this life January 16, 1922, a much regretted man. He was always welcome at medical meetings. It was a pleasure to see his smiling face as he accosted you. There was in his eyes a fascinating invitation to friendship, and those who accepted it remained attached to him for life.

J. A. S.

WALTER WOODRUFF PARMALEE.

AUBURN, 1874-1921.

Although suffering for a long time from a finally rapidly developing and actually hopeless abdominal condition, Dr. Parmalee insisted upon an operation being performed for a possible relief. He did not, however, survive it more than a few days, dying Friday, October 2, 1921, in Auburn, where he had practiced successfully as an eye, ear, nose and throat specialist for several years.

He was born in Rockland, August 22, 1874, a son of George Henry and Adelina Parmalee, educated in his native town, and whilst working for some years in an apothecary shop he always kept in mind a final intention to become a physician. After a while he settled in the same business in Burlington, Vermont, and attending the proper courses of medical lectures at the Medical School attached to the University of Vermont, he obtained there his medical degree in 1900, and began general practice at Hebron. He studied constantly the literature of his specialties, as before mentioned, took post-graduate courses in larger cities, and settled in Auburn about 1901. He surrounded himself with all the special apparatus needed in his practice and soon achieved success. He was liked by his clients and by the associate members of the staff of the hospital to which he was soon appointed. I find no traces of papers written by Dr. Parmalee, and I take it that he was one of those busy practitioners who never have time to write what they see or of what they think. Their minds are on the business of looking after their patients day by day, and then taking a rest.

Dr. Parmalee married, September 6, 1902, Miss Josephine Howe, of Lewiston, daughter of Dr. Howe, once of Pittsfield, and is survived by her and six promising children. Although he was thirty-five years of age when he saw his first patient, as a physician he obtained rapid results, by a genial personality and well-trained mind.

J. A. S.

GEORGE ANDRÉW PHILLIPS.

BAR HARBOR, 1854-1921.

Dr. Phillips had long been suffering from an insidious form of nephritis, but so few people knew about his low physical condition that it was a great shock to the community at Bar Harber to learn of his sudden death on Sunday, October 9, 1921.

He was born at Orland, April 15, 1854, the son of Luther Ames and Livonia Phillips, and educated at the Highland School and High School at Hancock. During vacations in winter he taught school as he



GEORGE ANDREW PHILLIPS.

grew up, and in the summers took several fishing voyages on the Grand Banks for the experience and the pay, much as described in "Captains Courageous." With the funds thus obtained he studied medicine with

Dr. Hodgkins, of Ellsworth, and obtained his medical degree at the University of New York Medical School in 1882. He practiced first at Ellsworth, until 1902, and afterward at Bar Harbor, for less fatiguing drives to patients.

He was very prominent in Bar Harbor, doing valuable work in the preservation of its ancient history, in the development of the village, the improvement of the roads, and as a legislator, where he made his name memorable for carrying into effect his famous law against the spread of syphilis.

Dr. Phillips was a versatile writer on literary topics, whilst his medical papers had a distinct and practical value. Amongst these we recall his remarks on pneumonia, and his eulogy of Dr. Simmons of Bangor, read before our Association. The medical paper was of solid worth, whilst the eulogy was not too imperative in its demands upon sincerity and belief. All in all, Dr. Phillips has left behind him a solid reputation as a straight-forward physician and surgeon—a handsome record for remembrance by his widow, formerly Miss Helen Grant, from Ellsworth, and his brothers, who are active members of our Association, working still in the famous town of Eden, the fairest garden in Maine.

J. A. S.

ALTON SAWYER.

GARDINER, 1848-1922.

It is rare for most physicians to accumulate any money, although most of us are known in life as "one of those rich doctors." Yet Dr. Sawyer succeeded in building up a large fortune by strict attendance to his extensive medical practice, and, better still, by the most careful investment of fees obtained in forty-four years of labor. At the end of his life he astonished almost all of the inhabitants of his place of practice, by leaving abundant capital wherewith to endow in perpetuity the Maine General Hospital at Portland. For such a gift the memory of Dr. Sawyer is to be congratulated, for the medical and surgical work done in this hospital in the past is a sure guarantee that it will be continued far into the future, with the aid of Dr. Sawyer's very generous bequest.

Dr. Sawyer lived so uneventful a life that it is difficult to discover any traces of his career. He took no vacations, he wrote no medical papers, he did not care for sports, fishing, music, or collections of any sort. He had just two hobbies; to devote his life to medicine, and to save in every direction his abundant fees.

He was born in North Wayne, September 23, 1848, the son of Harrison Harlow and Margaret Atwood Sawyer, obtained his medical degree at the Jefferson School in Philadelphia in 1878, settled at once in Gardiner and married Miss Elizabeth Levitt, who survives him. His health was rather poor for some months before his death, which was sudden at the last, March 1, 1922.

I regret that so far I have been unable to discover how he happened to become interested in the hospital to which he ultimately leaves his handsome fortune, but he must have thought that he would put his money where it would do material good to the sick people of Maine, and at the same time educate alike the staff of the hospital and many younger students of medicine and surgery.

J. A. S.

GEORGE EDWARD WASHBURN.

Augusta, 1875-1921.

More than a thousand people attended the church funeral of this very much beloved physician of Augusta on Friday, the 17th of October, 1921. He had worked to almost the very last day of his life. Trying to save the lives of others attacked with pneumonia, he contracted that serious disease himself, and after a few days of rapid loss of strength, and tremendous struggle for life, he succumbed to death on the Wednesday previous.

Although he figured to but slight extent in the meetings of our Association, he was widely known in Kennebec County, where for twenty-three years he worked more valiantly and bravely than any other general practitioner. This may have been as a penance for patients whom he had in his early years attended to too thoughtlessly.

Born in Lewiston, February 3, 1875, the son of George Edward and Esther Richardson Washburn, he moved at an early age to Augusta with his parents, was there educated and obtained his doctorate in medicine at the Bowdoin Medical School in 1898, presenting a carefully written thesis for examination on "Cerebral Hemorrhage." Directly afterward he settled in Augusta for life. From the start he devoted himself to his profession and gradually became known as the man who would refuse no call for any person whatsoever, at any time of the twenty-four

hours. He was at first in practice with Dr. Frederick, but soon married Miss Rose Dietrich, of Chelsea, Maine, and started out for himself. He was self-reliant to a degree. He gave more time, more care, more mental anxiety and more physical labor to his patients than the ordinary general practitioner, and he paid for it with his own life. This is a fine record for any physician, and so this eulogy ends briefly, in that it says, he was loved by all who looked to him for medical care, attention and devotion. All of the business houses of Augusta were closed during his funeral. He worked himself to death for his patients and his best record is to be found in the loving memory of those who trusted, and not in vain, in his human skill, directed, as they believed, by a personal God.

J. A. S.

JOHN HENRY WEBBER.

AUBURN, 1867-1922.

Dr. Webber had finished his evening round of calls after supper on Sunday, March 5, 1922, and putting his motor car into the garage, he walked into his home and dropped dead instantly. He had not been really well for some time previous, but had never been warned of the chances of sudden death or of the need of being especially careful concerning his heart. He had worked at his practice as usual up to the very last minute of his life, and then he had died in harness, as used to be said before the days of the motor car. Here, then, is another instance of a physician doing much high-class medical and surgical practice, yet how little can be found to say concerning him. He saw many patients, he performed many operations, and then he ceased to be and to do. His is one more of those examples of the frightful uncertainty of life.

John Henry Webber was born in Hermon, February 7, 1867, obtained his degree at the Dartmouth Medical School in 1895, practiced first in Monroe and then in Winterport, where he married Miss Grace Harlow, who, with five children, survives him. When a better opening for practice, and especially for surgery, for which he had a growing fondness, appeared at Auburn, he moved there about 1910 and spent there the rest of his life. He had good success with his patients and operated skillfully in the local hospitals. Everywhere we hear kind words concerning his gentlemanly behavior, and his high sense of cour-

tesy to all around him. Intimate details, however, concerning his life are lacking, yet in time further information may be obtained. It is with regret that so brief a notice of an active career in medicine can be obtained.

J. A. S.

CHARLES HUTCHINSON.

PORTLAND, 1831-1921.

Every now and then some physician passes into his ninetieth year of life, and of this rare number Dr. Hutchinson was a notable instance, for he remained medically and physically active almost to the last.

He was born in Albany, New Hampshire, May 2, 1831, the son of Rawson and Sophie Cummings Hutchinson, and he died in Portland December 5, 1921. He was liberally educated at the Bridgton, South Paris and North Yarmouth Academies, studied medicine during two courses of lectures at Bowdoin in 1855 and 1857, and finally obtained his medical degree at the Albany Medical School in 1858. He then settled for practice in North Waterford, later in Gray, and finally in Portland for the remainder of his life. During the Civil War he served in the medical corps at Fortress Munroe, and at the battle of Malvern Hill on the Peninsula.

He married, about this time, Miss Mary Cushman, daughter of the well-known Dr. Solomon Cushman, of Brunswick, and Harriet Whitney, his wife, and is now survived by a son. Mrs. Hutchinson was a very kind-hearted, courteous, conversational and hospitable woman, whom I remember most gratefully for many kindnesses during a period of struggle for practice in early years in Portland.

Dr. Hutchinson liked, in his busy years, to attend the medical meetings and to discuss, with fervor and interest, the papers presented, his voice sometimes cracking oddly as he became excited in expressing any forcible dissent. He wrote in his time some very remarkable papers for our Association—practical case reports, with post-mortem examinations, as during an epidemic of cerebrospinal meningitis, and others on scarlatina, and some new remedies which he had found of value to his patients. These papers were remarkable for their clarity of diction, vivacity of phraseology and delicate criticisms of fashions current in those days in medical treatment. He possessed an extraordinary insight into symptoms and syndromes, and into people likewise, managing them as he wished by psychical suggestion. Few members ever composed simpler, clearer or more deductive case reports than Dr. Charles

Hutchinson when in his prime. He was first, last and always a clinician; a country physician, ultimately transported into the large city of Portland, but retaining his characteristics and his medical skill for many years amidst perhaps more experimentally-educated competitors.

J. A. S.

ALFRED DOW SAWYER.

1855-1921.

Dr. Sawyer was born in Pownal, January 8, 1855, and after obtaining his degree at the New York University Medical School in 1880,



ALFRED DOW SAWYER.

he practiced five years in Lisbon. During that time he often called in difficult cases the assistance of the late Dr. Alfred Mitchell, of Brunswick, for whom he had great admiration.

A neighbor visited the Aroostook region in the summer of 1885, and invited Dr. Sawyer to be his companion. While there, Dr. Sawyer took a good look around and made up his mind to settle in Fort Fairfield. There he soon obtained a lucrative practice, often riding sixty

miles each way to patients over bad roads, making his own preparations for operations, doing his own nursing, and carrying on the after-treatment. Such labor was hard, but it gave him the greatest possible confidence. He was a conservative operator, and although willing to do an acute appendectomy, he preferred the "interval" operation, and had fine results. Supported by a sound judgment, he was afraid in no emergency.

After attending special post-graduate courses in 1910, he specialized in eye and ear practice for the rest of his life.

Dr. Sawyer wrote a good paper, "Mistakes Which I Have Made in Practice," for the county society, and one on "The Abuse of Drugs" for the State Association, while in his Presidential address he spoke for Progress and a Psycopathic Hospital in Maine.

His charming personality obtained for him an election to the Legislature and the largest Democratic vote ever given in a Republican stronghold.

Dr. Sawyer was a steady reader of all things good in medicine and literature. He admired Abraham Lincoln and once delivered a public address concerning this great man. He supported the late war and gave to it two of his three sons for surgeons. He never spoke against physicians. It was painful for him to put a price upon his services. Only when cornered would he send in a bill for any amount. He was no compromiser; he was either for a thing, or he was against it. If he didn't happen to like people, he wouldn't advertise them much. He was interested in the public schools, visited them and the children often, and saw that good schoolhouses were built for them.

When he was acting as a delegate to a meeting of the A. M. A., some English physician urged him to take a motor vacation all over England. This he did in 1912, with Dr. Kilburn, of Presque Isle, and after a wonderful tour through the cathedral and country towns of the United Kingdom, they enjoyed a medical vacation in London, where they were most kindly received at Sir Arbuthnot Lane's clinic, and shown the best of everything. This tour was a joy for Dr. Sawyer to remember, and to think over, for the rest of his life.

The closing months of the life of our former President were rendered excruciatingly painful by a growth of a cancerous nature. Even the applications of radium, which were looked forward to as a means of recovery, proved most painful and exhausting, so that toward the last the poor suffering man had no longer any desire to live. He departed from the scenes of his labors and of his very active life June 20, 1921, and his works do follow him. His career was much above that of the average physician, and he was a man of sterling value in our surgical ranks.

J. A. S.

Note.

(Daylight Saving Time.)

PROGRAM OF STATE MEETING.

MONDAY, JUNE 26, 1922.

House of Delegates.

Headquarters, Falmouth Hotel.

The House of Delegates will meet at 6.00 P. M. Monday evening at the State of Maine Room, Falmouth Hotel, for dinner, followed by meeting, and at such other times as may be necessary, subject to the call of the President.

THE COUNCIL.

The Council will meet with the House of Delegates on Monday evening, and at such other times as may be necessary.

TUESDAY, JUNE 27, 1922.

Main Dining Room, Falmouth Hotel.

9.00 A. M.

Call to Order by the President.

Invocation.

Introduction of Visiting Delegates.

1. "Elements Confronting the Abdominal Surgeon,"

Walter H. Miner, Calais

Discussion opened by John Sturgis, Auburn.

2. "Recent Developments in Blood Chemistry,"

Herbert E. Thompson, Bangor

Discussion opened by Mortimer Warren, Portland.

3. "Demography," Clarence F. Kendall, Augusta

4. "Some Observations on Infant Feeding as Seen in the Boston Floating Hospital in 1921," Charles N. Stanhope, Dover

2.00 P. M.

5. President's Address, Addison S. Thayer, Portland

6. "Sheppard-Towner Bill," J. A. Spalding, Portland

7. "General Practice; A Specialty and Opportunity,"

Raymond V. N. Bliss, Bluehill

Oration in Medicine.

8. "Diabetes," Elliott P. Joslin, Boston, Mass.

7.00 P. M.

Members of the Maine Medical Association and accompanying ladies are invited to become the guests of the Cumberland County Medical Association at the annual banquet, which will consist of an informal shore dinner at the Falmouth Hotel, Tuesday evening at 7.00 o'clock (daylight saving). Business dress. No receiving line.

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3.

The following will speak immediately after the banquet: Olin West, Chicago, Field Secretary American Medical Association "Public Health Nurse," Miss Edith Soule, Portland "Medical Cults." Channing Frothingham, Boston, Mass.

WEDNESDAY, JUNE 28, 1922.

9.00 A. M.

"Treatment of Arterial Hypertension," 1.

M. Carroll Webber, Portland

- "Colles' Fractures," 2.
- C. C. Morrison, Jr., Bar Harbor William W. Bolster, Lewiston
- "Hydrotherapy," "Mental Therapy," 4.
- Lester P. Gerrish, Lisbon Falls

2.00 P. M.

1. "The Cancer Control Problem,"

Edward H. Risley, Waterville

"Anesthesia." 2.

James T. Gwathmey, New York City

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NEW AND NON-OFFICIAL REMEDIES.

During April the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

Abbott Laboratories:

Izal.

Izal Disinfectant Powder.

Intra Products Co.:

Ven Sterile Solution Mercury Benzoate, 1 cc.

Merrell-Soule Co.:

Powdered Protein Milk-Merrell-Soule.

Parke, Davis & Co.:

Pertussis Vaccine.

Pneumococcus Vaccine (4 Types).

Streptococcus Vaccine Polyvalent (Scarlatina). Typhoid-Paratyphoid Vaccine (Prophylactic).

Seydel Manufacturing Co.:

Benzocaine-Seydel.

Winthrop Chemical Co.:

Iothion.

Iothion Oil.

Sabromin.

Sabromin Tablets, 8 grains.

Acriflavine-Heyl:

Proflavine-Heyl: These products are now marketed by the National Aneline & Chemical Co., and the Council has continued the acceptance for New and Non-official Remedies under the new firm name.

The Management of an Infant's Diet

Diarrhea

The importance of nourishment in intestinal disturbances that are so common during the warm weather is now recognized by physicians, and it is also appreciated that the nutrition furnished must be somewhat different than the milk modification usually supplied to the normal infant.

Food elements that seem to be particularly well adapted, mixtures that are suitable to meet the usual conditions, and the general management of the diet, are described in our pamphlet—"The Feeding of Infants in Diarrhea"—a copy of which will be sent to any physician who desires to become familiar with a rational procedure in summer diarrhea.

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ANNA SHEPARD, R. N.

THE JOURNAL

OF THE

Maine Medical Association.

Published under direction of the Council of the Maine Medical Association.

All papers, case reports, etc., should be typewritten when possible.

Proof-sheets will be sent to the author when requested.

Communicate with the printer early regarding reprints, as the best rates can be had during time that the paper is on the press for the Journal.

The Journal assumes no responsibility for opinions expressed by the authors.

VOL. XII.

JULY, 1922.

No. 12

*PRESIDENT'S ADDRESS.

By Addison S. Thayer, Portland.

We live in stirring times. The nightmare of the worst of all wars has been followed by a bright awakening to votes for women and drinks for nobody.

For forty years, as student or practitioner, I have attended the annual sessions of the Maine Medical Association. I have also had opportunities to share in medical service in most of the larger settlements in Maine south of Fort Kent, and during the present year my visits to county medical societies have proved to be a pleasant duty. The changes which I have observed in the evolution of medical practice in Maine have been peaceful, if contrasted, for example, with the sharp transition from the rule of the Czar to the rule of the Bolshevik. Our share in the course of human events has kept us far outside of the currents of the political vortex—too far, perhaps.

The history of the Maine Medical Association has yet to be written. Our development has not been wholly benign, but for the most part it has seemed to me a healthy growth of healthy tissue.

At the outset, I will mention and dismiss the calamity which I believe to be the greatest. Recognizing the bias which I naturally feel, let me quote the words of the dean of a "rival" medical school, Dr. John M. Gile, of Hanover, in his presidential address before the New England Surgical Association at Worcester, last October. The

*Read before the Maine Medical Association, June 27, 1922.

discontinuance of a medical School as strategically located and as inherently sound as the Bowdoin school is an educational tragedy."

Over against the loss of our Medical School, with its honorable history and its potency for future service, we may properly credit our state with gratifying gains in varied resources which contribute to the common good.

It was less than half a century ago that the first general hospital was established in Maine. Now there are so many that it has become difficult to define the word "hospital." A doctor receives into his house one or two patients. Presently he becomes a member of a staff or "group," and a community hospital has been evolved. Then arrives the problem of the abuse of charity—more acute in large cities and in dispensaries, but never absent. Conference, study, comparison and experience gradually lead to mutual understanding and adjustment. Here, again, we need each other.

Coroners and coroners' juries are properties of a bygone drama which some of us have seen enacted. Our present system of medical examiners is a long step in advance, but most of our officials feel themselves poorly equipped, especially when measured against examiners in Massachusetts, some of whom, by reappointment, have been trained into scientific specialists in the detection of crime. With us, when the term of a medical examiner expires, a scramble ensues, and an enterprising political brother is apt to pluck the plum. If only, at such a time, we could all become *politicians*, in the best sense of that word, by and by we also shall have, in our profession here, a corps of trained examiners.

In Maine, the commitment of the insane has been, at times, a barbarous proceeding—a rubbing of salt into the sores of the mentally diseased. Two of us recall a six-year struggle, as members of a committee of this association, before we succeeded in making permissable in Maine a procedure which is the established rule elsewhere in New England—commitment by a judge. In line of progress, also, has been the sanction of two other methods—voluntary commitment and emergency commitment. No act of ours, as a body of medical men, would be likely to influence the Supreme Court of Maine to modify its inflexible test for sanity, to wit, a knowledge of right and wrong, but when one of us gets the ear of a single judge, good-fellowship and tobacco may help to make it clear that even a judge is ridiculous when he denies the existence of mental symptoms, well known to every asylum nurse.

Before the Anatomical Law had been secured through the efforts of Frederic Henry Gerrish, the necessary study of anatomy in this state was possible only through virtual complicity with crime. This law served its purpose well until medical education within our borders ceased to exist. For future advancement, a reasonable removal of restrictions which now make *post mortem* examinations difficult and infrequent will inure to the good of the living.

To Doctor Gerrish's unremitting efforts we are indebted, also, for the establishment, more than forty years ago, of our State Board of Health. The expansion of the functions of this board has been a source of public pride. As a single illustration, let me cite the service—useful to the people and to us—rendered by the State Laboratory at Augusta. We may well watch with distrust a cheese-paring policy liable to hamper the usefulness of the Maine State Board of Health.

Educating the public has sometimes seemed a subtle plan for advertising the doctor. The further removed from the circuit of the village doctor such activities are, the more impersonal they appear. The American Medical Association has new plans for public propaganda, to be followed with interest.

Our own development is increasingly assisted by continuity of purpose and of action. Presidents come and go, but secretaries often stay; and it should be and is the *secretary* who best can acquire momentum and ability to carry on. Our State Secretary is now the delegate from Maine. He is learning the ropes, and he has woven a rope of his own with which to bind together various organizations which exist for the promotion of health. The paper of Dr. Bryant read at the Conference of Secretaries in Chicago, last November, has received attention in the West, the East and the South.

Some of our county organizations were even earlier in utilizing the efficiency which comes to a secretary. May I suggest that in each county society the second-best member—second in social interest—shall propose, at the next county meeting, payment of the Secretary's expenses once a year to Bangor and once to Portland, for the common benefit of county and state—benefit which has been found to accrue from attendance at our semi-annual conference of secretaries?

The principles of home-rule have gained ground and have lost ground. Some of us recall the difficulties encountered by state censors in sifting recommendations for membership. An applicant from a distant part of the state would be opposed; and yet the number of applicants was all too small. Now his neighbors, who know him best, decide whether or not a man will be an acceptable member. On the other hand, the individual member has seen many of the

functions of his membership recede into the hands of a central body of control.

Medical defense offers a genuine return for membership dues, and that, too, at bargain prices, the wholesale rate being about half of what we had paid at retail. We protect ourselves and we protect each other. The immediate reduction in the number of blackmail suits seems too good to be true.

We have at length oriented ourselves with partial success in the midst of the workings of the Workmen's Compensation Law and the Industrial Accident Commission. The school doctor and the school nurse are no longer strange birds, but they will bear watching as regards their habits and in the interest of those who should properly consume the grain. The tribe of the lodge doctor does not at present increase. We are warned, however, that the day of the community doctor, to be paid by the state, is close upon us, concerning which we reserve a right to disbelieve. Nurses of many orders—public health nurses, visiting hospital nurses, industrial nurses and insurance nurses—have come to stay. We must study their ways and they must study ours, all to the highest ultimate end, the common weal.

Maine is one of six states which have not yet accepted the provisions of The Sheppard-Towner Maternity-Welfare Act. This law, admirable as it is in its purpose, has been judged to be a piece of ill-considered and unwise legislation. More than forty states, however, have accepted it, New York and Massachusetts having refused acceptance, largely for the reason that, financially, it forces a populous state to pay out distinctly more than it gets back. The Attorney-General of Massachusetts, in an elaborate opinion rendered May 2, 1922, declares the law unconstitutional. Time must elapse before the Supreme Court announces a decision. The local interests of Maine in this matter have received attention from our new and energetic Committee on Public Relations, as also from our County Secretaries at their last convocation, and the next item on our program to-day will state the conclusions of our alert-minded mentor, Dr. Spalding.

*SOME OBSERVATIONS ON THE PRACTICE OF MEDICINE.

By Elmer E. Brown, Bangor, Maine.

The title of this paper was supplied by our intelligent secretary, after we had declined to suggest a name for it. It will be to some extent an expression of vague generalities, in which no exhausting effort for accuracy will be attempted.

It is probable that our main inspiration in writing this is our approach toward the dead line of usefulness laid down some years ago by a justly famous physician. Probably Dr. Osler was greatly misrepresented and misunderstood in his celebrated dictum, the meaning of which, as we understand it, was that at the age of sixty men could be eliminated profitably from the responsible affairs of life because they were no longer receptive of new ideas and consequently no longer progressive.

In response to this charge the elderly man has two perfectly good lines of defense.

First, he may say that it is not true; that, as a rule, the old men who are not receptive of rational and valuable new ideas were never conspicuously progressive, and he could point to the valuable work of many aged men and ably sustain his contention. Again, and especially in the field of medicine and surgery, he might point to the vast graveyard of new ideas as a fair vindication of his apparent indifference.

There appear to be two rather distinct varieties of new ideas. One kind is based upon existing knowledge, worked out logically to a point of practical application; another kind, having no such solid foundation, is often supported only by limited and questionable experiment. As an example of the first may be cited the development of the recognition of septic processes, the knowledge of infection and contagion, and the application of this knowledge in medicine and surgery. Examples of the other variety of new ideas are so numerous that probably one or more could be found for every day in the year, and if one per cent. of them had any value it would be difficult for anybody to die except by violence. With a medical profession awakened and eager for new and better methods of treatment, it was easy for the pharmacists to put over a deluge of proprietary preparations

^{*}Read before the Penobscot County Medical Association at its annual meeting in 1919.

as specifics for nearly all diseases, and mainly through the medical profession's receptivity of new ideas to maintain their profitable exploitation of the sick and weary for many years. Much of the stuff so dispensed had a pretended foundation in the established facts of chemistry, physiology and infection. Incidentally this exploitation furnished an interesting illustration of modern business methods with the influence of money incentive actuating the captain of business and industry. Many undoubtedly believed themselves benefitted by these preparations who were in no way improved or whose improvement was entirely due to natural causes and in no degree a result of medication.

Given a patient under medical treatment, consider the possibilities. His condition may be in no way changed, but he may think himself improved. He may improve, he may recover, he may be worse or he may die. Either of these results may be due to treatment, but any one of them might come about, and in a very large proportion of cases under treatment does occur, independently of the treatment. With these possibilities in mind it is easy to understand why these preparations became and remained popular for many years.

The determination of the value of a new drug or the application of a familiar medicine to a new purpose is generally a slow and difficult process and any announced discovery is sure to have a period of apparent success. Much was expected of the many coal tar preparations thrust upon us. They relieved pain and became popular. They cured nobody and occasionally killed the patient.

The rediscovery of new ideas that have fallen into disuse is not unknown. Thirty years ago digitalis had a brief, but exalted flight as a sovereign remedy in pneumonia. It was extensively discussed in medical journals, and for a time had the support of many competent physicians. Then it was generally dropped and the profession settled upon the sensible conclusion that drugs were about useless in this condition. Twenty-five years later the value of digitalis in pneumonia was again discovered and has or will again meet with its former fate.

The introduction of the use of poultices in treatment of pneumonia captured the public and the profession, and for many years he was a strong man who could treat a case of pneumonia without poultices and continue to practice medicine. As to the content of the poultice there was no specific rule. In general, it needed to be in volume and stickiness proportionate to the alarm of the relatives and neighbors of the patient. There seemed to be no ban on any convenient substance. The late Dr. Mitchell, of Bowdoin, informed his classes that he drew the line firmly at the excreta of cows. Slowly and painfully the doc-

tor, and finally the public, struggled up to a realization of the uselessness of this disagreeable treatment.

An enumeration of drugs and uses of drugs that have been discovered and generally forgotten during the past thirty years would be tedious. They probably number about one for every day of the thirty years.

The use of electricity for therapeutic purposes was pushed considerably ahead of the general march of progress by the lofty endeavor of modern business. Our earliest recollection of the therapeutic use of this agent attaches to the small batteries (faradic or galvanic) used by a limited number of physicians, who obtained by their use occasional slight advantage over those who did not embrace the idea. No others appear to have received any benefit.

With the advent of the X-ray the electrical manufacturers with electrical activity got into the game and equipped the medical profession with impressive appliances for the treatment of many diseases, external and internal. While the diagnostic value of this agent stands as a scientific triumph, its therapeutic use has disappointed many. The dermatologist who should get results with this agent, if it had therapeutic value, gives us only inconclusive reports and scarcely claims other than temporary results, occasionally combined with disagreeable sequela. As a religious factor it probably ranks favorably with Christian science, and with the exception of occasional disagreeable burns, did no great harm, and might properly be met, at least, with the tolerant sympathy one would extend to an enemy who approaches his end.

Recent theories of rheumatic causation have been received with favor by the medical profession generally, and in the exciting search for foci of infection the possibilities of twenty-five feet of intestinal canal, of the possible disturbance of balance in the shadowy and complex processes of metabolism and the internal secretions are lost sight of, and the chase finally ends at teeth and tonsils.

Our personal interest in this idea centers largely upon the alleged causal relation of diseased teeth to diseases of the eye. When this idea first appeared it seemed to be based on the intimate nerve relation between the two organs. Later it inclined to merge into the rheumatic theory. In view of the nerve relation, the belief that disease of the teeth might result in disturbance of nutrition of the uveal structures and cornea is not unreasonable. However, if one should study this question in a back rural community reasonably free from venereal disease, where the services of a dentist were not easily obtainable, he might conclude that diseased teeth prevent iritis. Now this, of course,

is an absurdity, but on statistical grounds no other result would be possible.

My profane friend from Waldo came to me with recurring iritis. I finally advised him to look after his teeth, so the dentist made, or had made, pictures in which he pointed out to me vague shadowings, which left no doubt in his mind that a terrible condition existed. The teeth were extracted and I examined them, hoping to find something that I could speak of with enthusiasm, but even with the help of the dental surgeon I was unable to grasp the fine points of pathology which he demonstrated. I do not refer to this with the purpose of criticising the dentist. I prefer to admit that it may be due to some obscure fault in my own perceptive processes that I am generally unable to appreciate a pathological significance in the minute irregularities and apical variations which the dental surgeon usually points out to me. However, this patient made the usual recovery and returned within a year spitting lurid profanity through his toothless gums. The iritis this time was not more nor less severe than formerly.

Another patient had recurring attacks with resulting iritic adhesions, increasing tension and constant reduction of vision. On one occasion I wrote to her, advising her to have a careful examination of teeth, and if any signs of disease were present to have them out. She promptly informed me that she had taken them all out every night for fifteen years. Now this theory of the causal relation of diseased teeth to iritis, either from a scientific or an empirical standpoint, has a very unstable foundation. It can have application in only rare cases and only as a contributory factor.

With reference to the tonsils as a rheumatic focus, it can be said that their removal does not deprive the patient of a useful organ. The number of cures, however, will fall far short of the number of operations. Formerly, there were well-defined reasons for removal of tonsils which could not reasonably be questioned. Obstructive oversize, recurring suppuration, recurring attacks of tonsillitis were cured by complete removal. Then came the rheumatic theory, and one can no longer tell when to operate or discourage operation. Shall tonsils be removed in all cases of rheumatism regardless of apparent condition? Most tonsils having no external evidence of disease show, when removed, follicular exudate, sometimes considerable in amount and having an offensive odor. Now neither quantity nor quality of this exudate shows us anything as to the possibilities as a cause of rheumatism. We believe this exudate to be, as a rule, about as poisonous as the contents of a sebacious cyst.

Our theories of rheumatism are still in the evolutionary stage, and

the doctor who seems ultra-conservative about removals of tonsils for this disease could easily justify his position, and in general, in view of these constant changes in theory and therapy, a sanely progressive practitioner of years of experience is bound to look upon the constant torrent of new ideas without excitement. There are undoubtedly elderly men who "could not be backed up to a new idea with blinders on," just as there are young men who look for a new idea on every bush and cannot go to sleep without a new idea to suck. This elderly man is certainly not progressive and he never was progressive. The man who enters and works in any calling with eyes open for improvement in methods of activity will always be ready to welcome new ideas that have been placed on a rational foundation. Progress, however, in the practice of medicine especially, implies not only the adoption of valuable discoveries but the elimination of some harmful theories and much that is useless.

Necrology.

HERBERT SUMNER SLEEPER.

Lewiston, 1865-1922.

Dr. Sleeper, the son of Sumner and Amelia Pratt Sleeper, was born in Lewiston, April 15, 1865, and died suddenly in the city of his birth, May 11, 1922. He was the third of our number to die of angina pectoris in the current year. He came to breakfast as usual, and was about to start for his work in connection with the physical training of Bates College students, when he was attacked and quickly succumbed to this deadly affection.

After a good education in Lewiston schools and Bates College, he studied medicine with the famous Dr. Russell, of Lewiston, and after intervals of teaching obtained his degree at the University of Vermont Medical School in 1891. He began practice at once in Washburn, and settled there with his wife, Minna Etta Stinchfield, of Wayne, who, with a daughter, now survives her husband, after happy married years. He soon had a good practice, and incidentally devoted himself to outdoor life, becoming a competent sportsman and botanist. A better opening offering in Lewiston, in 1900, he returned there and soon

became intimately connected with the physical training of the students at Bates. He conducted also, yearly, a summer camp in the wilds of Maine, and from that as a center practiced extensively amongst the loggers, who were glad to have near at hand a physician competent for ordinary acute diseases and accidents.

Dr. Sleeper was at one time much interested in politics, and was hand-in-glove with politicians of Northern Maine, but later on wearied of that and devoted most of his time to college students. He was fond of young people and was admired by them. He was just the man for their medical adviser. He kept in touch with all the sports and "fanned" for baseball, football, and everything else that was for sport and exercise. He was a kind-hearted man, loved and trusted by all the students. Some said he would have made a newspaper reporter, so keen was he in obtaining and communicating the news.

All in all, Dr. Sleeper filled a position with the young people of Bates which will long remain vacant, owing to the shock of his sudden death and the loss of his genial presence. He was to them a great deal more than a mere practitioner of medicine.

J. A. S.

CHARLES WASHINGTON BRAY.

Portland, 1850-1922.

Dr. Bray was one of those favorites of fortune of whom we read, but whom we rarely meet. Coming to Portland immediately after graduating in medicine in March, 1874, he dropped into the office of Dr. Tewksbury, a leading physician of his era, was given some simple cases, and by his suavity of manner and carefulness in dress he won a rapid clientage. He possessed in a high degree the art of backing up his book learning with personality in manners and in dress. He gradually obtained unusual skill in managing his patients, and ultimately became one of the favorite physicians of Portland.

He never did much surgery, but, by careful discrimination in the choice of the surgeons whom he recommended to his patients, he added greatly to his well-established reputation as a safe medical adviser.

He was favored by fortune in that, buying a house on Free Street, it increased largely in value by the time that he was ready to dispose of it. Buying again on Cape Elizabeth, at a low figure, a summer cottage with a farm, he sold most of the land for many times the price that he had paid for the whole establishment, yet retained the cottage as a residence for life.

Early in his career he appeared before the Association with two cases from the practice of Dr. Tewksbury. One was on "Amputations at the Ankle Joint," the good results of which he attributed to the use of hot carbolized compresses. The other concerned "Apparent Apoplexy in a Girl of Fifteen," but in which the post-mortem appearances varied greatly from the symptoms which the discovered abnormity ought to have classically caused. Frightened, perhaps, by so odd a concatenation of events, Dr. Bray did not write again. It is curious here to note that the successful doctors rarely write papers. Fortune seems to rush forward and to embrace them with wide-open arms, so that they cannot use their arms and fingers to inform the world of what they have done to deserve such luck.

Charles Washington Bray, the son of Washington and Catherine Jordan Bray, was born in Naples, August 5, 1850. His father was a natural bone-setter and was often summoned in cases of dislocations for miles around. The boy studied at Westbrook, and was medically graduated from the College of Physicians and Surgeons in New York. He married Miss Adelaide Brewer, of Portland, and is survived by her. Dr. Bray died suddenly at the last, June 20, 1922.

Those who visited Dr. Bray will not forget the little colored boy who for years helped out in the office and stable, and after his death others, also colored, took his place. Dr. Bray belonged at one time to a medical quartette of physicians called "The Owls of Portland," and he was the first to break that circle of friends. He was once asked to stand as democratic candidate for mayor of Portland, but declined, because, as he said, "If elected I cannot attend to the city and to my practice at the same time of day."

Finally, no mention of the active life of Charles W. Bray would be complete without annotating his love for yachting and his devotion to the Yacht Club of Portland as fleet surgeon and commodore for many years. This seems to have been his only sport, his single recreation from medical practice.

J. A. S.

JOURNAL OF MAINE MEDICAL ASSOCIATION

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THE ANNUAL MEETING.

The June meeting went off very well under conditions entirely different from those current in former years, for it was held in the Falmouth Hotel, and not, as usual, in City Hall. This change worked for good, in bringing the men into nearer personal contact. The only drawback was that the acoustics were not the most favorable for hearing papers or following the discussions. If held again in this hotel, members must remember to speak very distinctly.

Everybody admired the President's table, a gift from the heirs of Dr. Leander Gage, once of Waterford, paid for by an old bill being cashed to the heirs after nearly a hundred years. Sometime we hope to listen to a brief life of Dr. Gage, in order to satisfy the curiosity of some who would like to know what sort of a man he must have been to obtain for his estate money earned by capable medical services so long a time ago.

The program was excellent and showed distinct progress. were glad, indeed, to have the attention of the profession personally called to the neglect and omissions in the registration of births and deaths. It seems to us as if it would be well to compel such registrations always to be made on oath in these days when human life becomes cheapened in so many ways by accidents, the prevalence of cults and the neglect of proper medication.

The discussion on maternity welfare was well conducted, and it is much to be hoped that the proposed obstetric section will soon eventuate and become a permanent part of our Association.

The dinner went off exceedingly well, and the after-dinner

speaking was highly satisfactory. In a word, the meeting was the most successful that has been held for many a year.

Let the members from York and Cumberland and adjacent counties begin now to plan for a special train to carry us all to the long-looked-for and promising meeting to be held at Houlton, in fair Aroostook, in June of 1923.

J. A. S.

SECOND GROUP MEETING AT PORTLAND MAY 15, 1922.

It is the proper thing for the JOURNAL, even at this late date, to say a few words concerning this meeting, which, coming very unexpectedly upon Portland physicians and surgeons, was bravely met and properly carried through to an instructive end. The clinics at the Maine General and the Infirmary and elsewhere were well provided with abundant material, well attended, and the resulting surgery was of a high standard. The one curiosity of a Cæsarean section, resulting in twins, should also go on record.

The attendance at the public meeting is said to have been the largest ever seen in any city in the country, and of this Portland should be highly proud.

The paper concerning the standards attained by Maine's hospitals was illuminating, and it is greatly to be hoped that in every way the standard of Portland hospitals will be raised, so that we can soon rejoice in Class A hospitals throughout the state. It is unwise to try not to injure the feelings of individuals in attaining this much-desired result, and we expect that by some personal sacrifices the best of conditions will be obtained.

Much stress, also, was laid on the benefits of proper laboratory work, and of keeping all hospital laboratories in the pink of condition.

Too great praise cannot be given for the good results obtained by the committee in charge.

One of the best features of the meeting was the getting together of the numerous visitors and our own physicians, at various luncheons, so that sociability added to the ultimate and perfect success of the meeting. Let our slogan now be for the next group meeting: "Every Portland hospital to be elevated into Class A," where it should be and deserves to be by the excellent end results obtained first, last and always by the medical and surgical staff.

J. A. S.

County News and Notes.

ANDROSCOGGIN.

ANDROSCOGGIN COUNTY MEDICAL SOCIETY.

A special meeting of the Androscoggin County Medical Society was held in the Municipal Court Room, City Building, Lewiston, Maine, June 16, 1922. The meeting was called to order by the President, Dr. J. Sturgis. Records of previous meeting not read.

- Dr. C. Kendall, Health Commissioner, explained to the members the Sheppard-Towner Bill, and stated that forty-two states had accepted it, should be much in favor of accepting it in Maine also.
- Dr. W. Webber favored educating the puplic on maternity hygiene, but opposed the bill on the ground of federal taxation.
- Dr. H. Garcelon was of the same opinion as Dr. Kendall, and said he was in favor of the bill until the next legislature meets.
- Dr. Cushman stated that the American Medical Association had appointed a committee to investigate the bill and had reported against it, and that we, as members of the association, should follow.
- Dr. Webber, seconded by Dr. Call, moved that the Secretary be authorized to inform the Governor of the State of Maine that the Androscoggin County Medical Society is opposed to the Sheppard-Towner Bill. The motion was unanimous.
- Dr. Goodwin moved that a committee be appointed by the chairman to draw resolutions to Mrs. Nichols on the death of Dr. Nichols.
- Dr. O'Connell also moved that the chairman appoint a committee to draw resolutions on the death of Dr. Sleeper.

Committee appointed for Dr. Nichols' resolutions: Drs. Webber, Goodwin and Grant.

Committee for Dr. Sleeper's resolutions: Drs. Call, Cushman and Peaslee.

Moved to adjourn.

There were present: Drs. J. Sturgis, Kendall, Call, Cushman, Fahey, H. Garcelon, Goodrich, W. E. Webber, Grant, Chaffers, Fitzmaurice, O'Connell, Dupras, Goodwin, Desaulniers and Dumont.

L. J. DUMONT, M. D.,

Secretary.

AROOSTOOK.

AROOSTOOK COUNTY MEDICAL SOCIETY.

The annual meeting of the Aroostook County Medical Society was held in the Masonic Club rooms at Fort Fairfield on June 19th. On account of the unfavorable condition of the roads and weather but few were expected, but it was a surprise to see twenty-five physicians from over the county sit down to dinner at the Plymouth Hotel.

Dr. A. S. Thayer, of Portland, the President of the Maine Medical Association, was present and gave an interesting talk, as he always does.

Dr. S. Judd Beach, of Portland, was invited to come and read a paper, which he did, on "Focal Infections and Negative X-Ray Diagnoses." This was a splendid paper, and the society felt well repaid for inviting Dr. Beach.

Dr. Spalding, of Portland, was expected to be present, but owing to sickness could not come, so his paper, entitled "The Sheppard-Towner Maternity Bill," was read by Dr. F. W. Mitchell, of Houlton.

On account of shortness of time, because of members leaving on trains, Dr. Loren Carter's paper was put off until the October meeting.

Dr. T. S. Dickison, of Houlton, gave a very interesting talk on "Hospital Management," which was along the lines of management followed by the Aroostook hospital at Houlton. This hospital has been successful financially from the start, without asking state aid in any form whatsoever, is well equipped with a large X-ray machine, good operating room, in fact, all things necessary to meet emergencies and make the hospital first class. The staff is open; any surgeon can operate there who has a patient in the institution needing operation.

Dr. H. F. Kallock, of Fort Fairfield, read a paper, "Fees in Relation to Physicians Who Work in Hospitals and Those Who Do Not." This was certainly interesting to the majority present, and to the point, which was that physicians agreeing to live up to a schedule of fees adopted by the medical society have no right to treat ward cases for town or state or any other case in the wards of a hospital for less than the schedule fee. Discussion to be continued at the next meeting.

A few case reports were made, then the President, Dr. W. E. Sincock, read as his address, "Treatment of Fractures," outlining what he considered the best treatment. Certainly if his advice is followed, nothing but good results could follow.

Two physicians joined the society, Dr. Melvin J. Brown, of Mars Hill, and Dr. Burton O. Kinney, of the same town.

The following officers were elected for the ensuing year:
President, Dr. W. G. Chamberlain, Fort Fairfield.
Vice President, Dr. John H. Potter.
Secretary and Treasurer, Dr. F. E. Bennett.
Censor for Three Years, Dr. J. L. Johnson.
Delegate to Maine Medical Association, Dr. W. G. Chamberlain.
Voted, to hold the October meeting in Houlton.

F. E. BENNETT,

Secretary and Treasurer.

Notices.

MID-SUMMER CLINIC.

The second co-operative clinic of the Maine Medical Association with the Maine Public Health Association and the State Board of Health will be held in Lewiston, August 23rd and 24th. This clinic will follow, in general, the program of the one so successfully held in Bangor last winter.

Medical and surgical clinics and demonstrations will be held the two forenoons at the Central Maine General and St. Mary's Hospitals by the Androscoggin Society.

The Maine Public Health Association and the State Board of Health will have charge of the two afternoon programs, which will be devoted to public health work.

The first evening will be a general meeting of physicians and nurses and all those interested in public health work. Prominent speakers and health workers have been invited to speak upon the subject of "Co-operation in Health Work." Following will be a general discussion. This meeting will be in charge of the Maine Medical Association, and the President, Dr. Langdon T. Snipe, will preside.

The two-day sessions will close with a banquet with the local county societies on the second evening, followed by talks by the prominent guests and speakers of the clinics.

Every physician and public health worker in the state is invited to attend all the meetings and banquet of this Mid-Summer Clinic. There will be something of profit and interest doing every minute.

Safe and reliable for the summer feeding of infants

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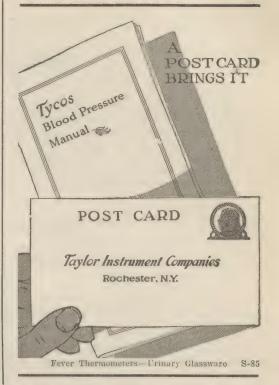
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NEWS AND NOTES.

Dr. C. W. Dyer has left Harmony, Me., and is now located in Augusta.

Harmony is at present without a physician. A few years ago three doctors were practicing there.

Dr. R. H. Clark has sold his property in Lewiston and will shortly remove to Portland. He has purchased a house on Forest Avenue and will open his office there.

NEW AND NON-OFFICIAL REMEDIES.

During June the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

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Erysipelas and Prodigiosus Toxins (Coley) 1 c. c. bulb.

Erysipelas and Prodigiosus Toxins (Coley) 15 c. c. bulb.

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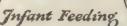
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